

PROJECT REPORT

On

Analysis of Effect of Temperature on Iodine Content in Common Salt and Implications on Thyroidism



Submitted for
JIGNASA - STUDENT STUDY PROJECT (2021-22)
Commissionerate of Collegiate Education, Telangana, Hyderabad

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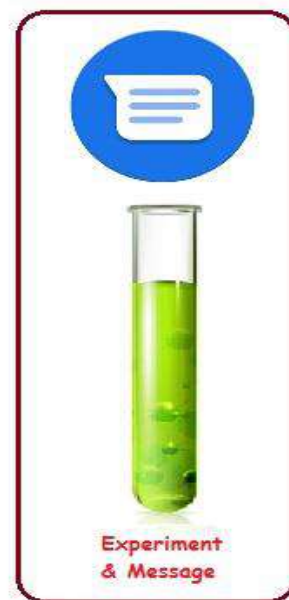
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PROJECT TITLE: Analysis of Effect of Temperature on Iodine content in common salt by Iodometry and its implications on Thyroidism.

AIMS AND OBJECTIVES:

In the present study we aimed

- To examine the type of iodine fortification of common salt.
- To determine amount of Iodine present in common salt-quantitatively.
- To observe the effect of temperature on iodine content
- To calculate amount of common salt has to be consumed to meet daily recommended dosage of Iodine for wellbeing and to keep the body in working order.
- To draw conclusions based on experimental observation and review of literature



STATEMENT OF PROBLEM OR HYPOTHESIS:

THE HINDU

MENU

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STATES ANDHRA PRADESH KARNATAKA KERALA TAMIL NADU TELANGANA OTHER STATES

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ANDHRA PRADESH

One in 10 Indians have thyroid problem, says doctor

Staff Reporter?

VIJAYAWADA, MAY 24, 2021 23:20 IST
UPDATED: MAY 25, 2021 10:50 IST

Friday, Apr 15, 2022

Telangana Today


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Home | Lifestyle | 4 Reasons Women Should Be Aware Of Thyroid Disorders

4 reasons women should be aware of thyroid disorders

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ILLUSTRATION: RITESH KUMAR

Understanding thyroid disorders

Around 42 million people in India suffer from various thyroid-related diseases

- One-third of thyroid patients are unaware of their condition
- One in 10 adults in India suffer from hypothyroidism, which is three times more common among women
- One in every three diabetic patients could have an underlying thyroid disorder
- 44.3% of pregnant women are found to have hypothyroid in the first trimester



Thyroid gland is a butterfly-shaped gland in front of the neck

REVIEW OF LITERATURE:

Reviewing the literature, News Paper reports it is alarming to know that prevalence of hypothyroidism in India is 11%, compared with only 2% in the UK and 4.6% in the USA. Endocrinologists links the high prevalence to long standing iodine deficiency in the country,

which has only been corrected over the past 20 years. The highest prevalence of hypothyroidism (13.1%) is noted in people aged 46-54 years, with people aged 18-35 years being less affected (7.5%).

Literature study shows Women are at high risk of Thyroid disorder, the factors include obesity, history of thyroid dysfunction or presence of goiter in the individual or a first degree relative, history of recurrent miscarriages or pre-term delivery, infertility etc. Women tend to ignore their health and visit a doctor only when extremely ill or experience severe symptoms.

In this context we made an attempt to investigate the cause of these disorders. Literature search reveals Environmental factors, exposure to cyanogenic compounds, endocrine disruptors, unclean drinking water and exposure to industrial pollutants like resorcinol and phthalic acid, hereditary reasons may be the cause of iodine disorders.

Studies emphasize that Iodine deficiency in food is also one of the causes of disorders which cannot be underestimated to treat or eradicate thyroidism.

The principal sources of iodine in the diet include milk and dairy products, sea foods and foods with added iodized salt. Vegetables, fruits and cereals are generally poor sources of iodine because most of our soils and water supplies are deficient in iodine.

The accepted solution to the problem and to provide required micronutrient is universal salt iodization where all salt for human consumption is iodized at a level of 20-40 µg/g.

Production of Iodized salt in India has increased by almost nine times in the past two decades—from 0.7 million metric tons per year in 1985-86 to about 6.2 million metric tons now a day. Iodized salt consumption increased from 51% in 2005-06 to 71% in 2009.

However a recent survey states that 42.2% of households consumed inadequately iodized salt and 10.5% consumed salt with no iodine.

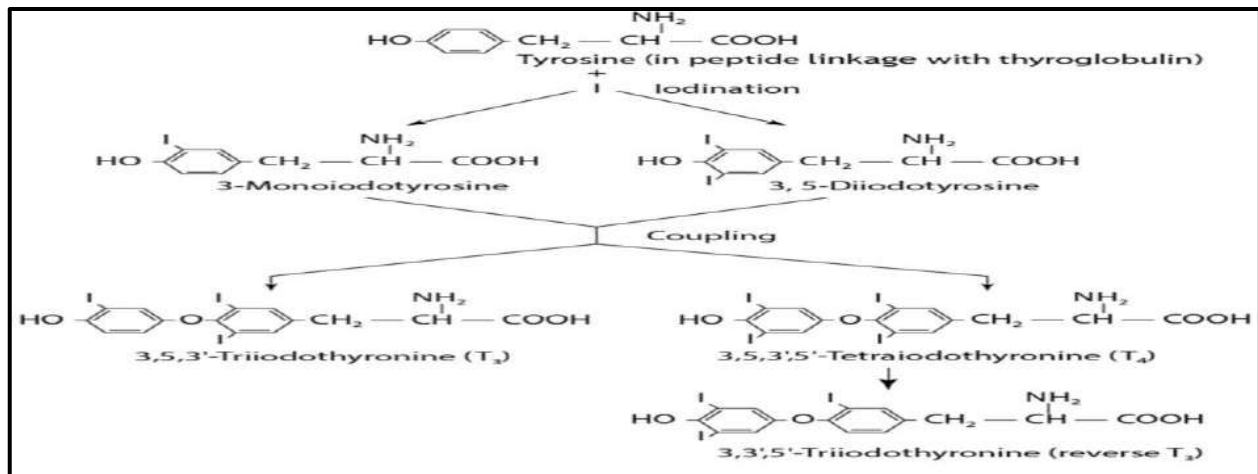
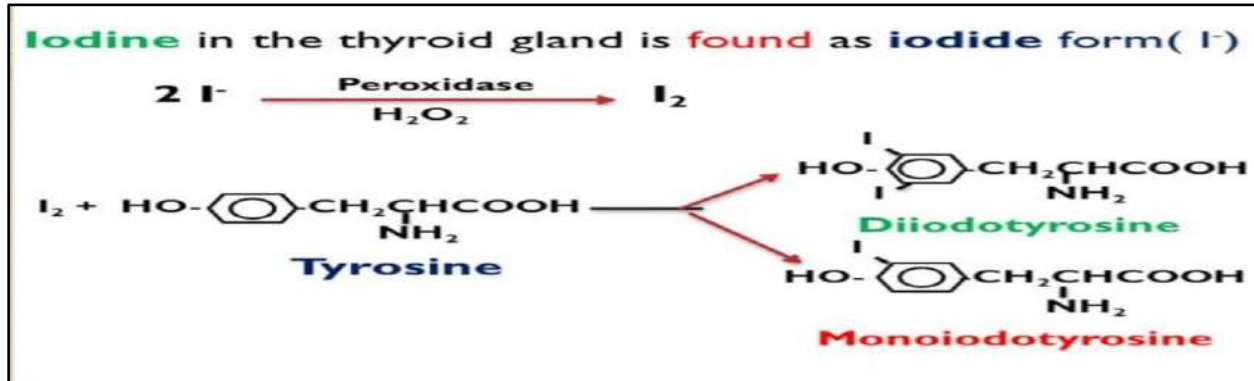
Hence, essentially through this project we worked out to check if iodine content in salt is sufficient or excess to prevent thyroid disorders.

BIOLOGICAL FUNCTION OF IODINE OR IODIDE:

ADME (Adsorption, Distribution, Metabolism, Elimination) of Iodine: Iodine in food and iodized salt is present in several chemical forms including sodium and Potassium salts, Inorganic Iodine (I₂), Iodate and Iodide— the reduced form of Iodine. Iodine rarely occurs as an element but rather as a salt, for this reason it is referred to as iodide and not iodine. Iodine is quickly and almost completely absorbed in the stomach and duodenum. Iodate is reduced in the gastrointestinal tract and absorbed as Iodide. When iodide enters the circulation. Thyroid gland

concentrates it in appropriate amount for thyroid hormone synthesis and most of remaining amount is excreted in the urine.

Biological importance of Iodine: Thyroxine and tri-iodothyroxine are essential components of thyroid hormones. Failures to have adequate iodine leads to insufficient production of these hormones, resulting in disease states known collectively as Iodine Deficiency Disorder (IDD). The consequences include mental retardation and other defects in the development of nervous system, goiter, physical sluggishness, growth retardation, reproductive failure.



RESEARCH METHODOLOGY:

In this project, we determined the form in which common salt is fortified with iodine or nature of iodizing agent by specific rapid tests with chemicals and apparatus available in our laboratory. Common Iodizing agents used are Potassium Iodide or Potassium Iodate. These are safe, cheap, and effective and have similar taste and appearance as common salt.

RAPID TEST TO DETERMINE THE NATURE OF IODIZING REAGENT:

Rapid test are specific to the form of Iodine and only the relevant form of Iodine will react with visible color development. Thus a sample fortified with Potassium Iodide (KI) will yield a negative result when an Iodate (KIO₃) Spot test is performed and vice versa. The following solutions are required for the spot tests.

Solution A: 0.5% weight/volume(w/v) starch solution made by boiling 0.5gm soluble starch in 100mL deionized water

Solution B: 1% (w/v) Sodium nitrite (0.25gm in 25mL Water)

Solution C: 20% volume/volume (v/v) H₂SO₄ solution (2mL+8mL water)

Solution D: 10% (w/v) Potassium Iodide (2.5gm in 25mL H₂O)

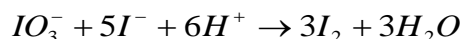
Solution E: 5N Hydrochloric acid solution made by mixing 10mL concentrated HCl (12N) with 15mL deionized water

A.TEST FOR IODATE:

Mix 25mL of Solution A, 25mL of solution D and 12drops (0.6mL) of Solution E. Place a small amount of the salt to be tested in a china dish and moisten it with two drops of test reagent and starch solution. If Iodate is present, the salt will immediately turn grey/blue and remain this color for several minutes before turning brown.

Reaction Mechanism for Iodate spot test:

Iodate from salt in the presence of free Hydrogen Ion or acid medium, oxidizes added iodide to give free iodine, this then turns starch blue.

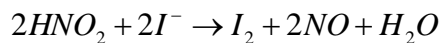
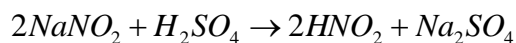


B. TEST FOR IODIDE:

Mix 50mL of Solution A, ten drops of Solution B and ten drops of solution C. Place a small amount of salt to be tested in a china dish and moisten it with two drops of test reagent. If Iodide is Present, the salt will immediately turn blue, and remain blue for several minutes before fading.

Reaction Involved for the Iodide spot test:

Free Iodine is liberated from the Iodide salt by oxidation with an acidic solution of sodium nitrite. The free Iodine will turn starch to blue.



If any of these tests prove negative, one can cross check the reliability of the solution by deliberately adding KI or KIO₃ to see if color develops.

DETERMINATION OF IODATE CONTENT QUANTITATIVELY- (CARRIED OUT AS RAPID TEST A IS POSITIVE FOR IODATE):

Standard Titration method: A given amount of salt is treated with concentrated sulphuric acid, KI which liberates Iodine. The free Iodine is titrated with Sodium Thiosulphate, using starch as the indicator.

Procedure:

STEP 1: Weigh 10gm of salt sample and transfer into a 250mL iodination flask with a stopper.

Add approximately 30mL water, swirl to dissolve the sample.

Add water to make the volume up to 50mL

Add 1mL 2N Sulphuric acid

Add 5mL 10% KI .The solution will turn yellow if iodine is present.

Stopper the flask and place in the dark for 10minutes.

Rinse and fill burette with 0.005M Hypo (Na₂S₂O₃) and adjust the level to zero.

Remove the flask from dark and add some Hypo from the titration burette until the solution turns pale yellow.

Add approximately 2mL of starch indicator solution (the solution will turn dark purple or brownish) and continue titrating until the solution becomes pink and finally colorless.

Record the level of thiosulphate in the burette and calculate the iodine present in parts per million.

STEP 2: Take 10gm of salt in china dish and heat to 60°C. Measure the temperature with Thermometer. And repeat the standard titration method for Iodate estimation.

Apparatus required: Burette, Iodination flask, beakers, China dish, glass rod, Spatulas, dropper, Pipette tripod stand, analytical balance etc

Chemicals required: Sulphuric acid, Hydrochloric acid, potassium Iodide, Starch, Sodium thiosulphate, sodium nitrite, distilled water.

CALULATIONS:

Titration of common salt solution with hypo before heating:

| S.No. | Salt commercial Brand | Volume of solution taken in iodination flask in mL | Burette reading Volume of Hypo consumed in mL |
|-------|-----------------------|--|---|
| 1. | A | 50 | 3.7 |
| 2. | B | 50 | 2.5 |
| 3. | C | 50 | 4 |

Titration of common salt solution with hypo after heating to 60°C:

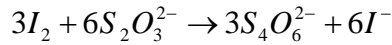
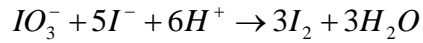
| S.No. | Salt commercial Brand | Volume of solution taken in iodination flask in mL | Burette reading Volume of Hypo consumed in mL |
|-------|-----------------------|--|---|
| 1. | A | 50 | 1.9 |
| 2. | B | 50 | 2 |
| 3. | C | 50 | 2.5 |

Calculation of I^- in common salt at room temperature (Titration of Common salt vs Hypo)

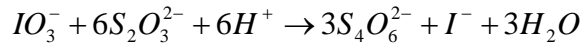
| | | |
|----------------|----|--------------|
| KIO_3 (salt) | Vs | Hypo |
| $M_1=?$ | | $M_2=0.005M$ |
| $V_1=50mL$ | | $V_2=3.7mL$ |
| $n_1= 1$ | | $n_2=6$ |

$$\frac{M1V1}{n1} = \frac{M2V2}{n2}$$

$$M1 = 0.000061M$$



Adding



Mormality of KIO_3 in salt solution = 0.000061M

Which implies 0.000061×214 gm of KIO_3 /1000mL of salt solution

=0.01317gm of KIO_3 present in 1000mL of salt solution

=0.00065gm of KIO_3 present in 50mL of salt solution i.e., 10gm of salt taken.

=0.065gm of KIO_3 present in 1Kg of salt.

214 gm of KIO_3 contains 126.90 gm of Iodide

=0.0385 of iodide present in 0.065gm of KIO_3 or 1Kg of salt.

=38.54mg/1kg of salt

=39PPM

Calculation of amount of Iodide after heating salt to $60^\circ C$: Calculations same as above

Amount of Iodide in 1Kg of salt

$$= \frac{\text{Buretreading} \times 0.005 \times 35.67 \times 126.90 \times 50 \times 100}{50 \times 214 \times 1000}$$

$$= \frac{1.9 \times 0.005 \times 35.67 \times 126.90 \times 50 \times 100}{50 \times 214 \times 1000}$$

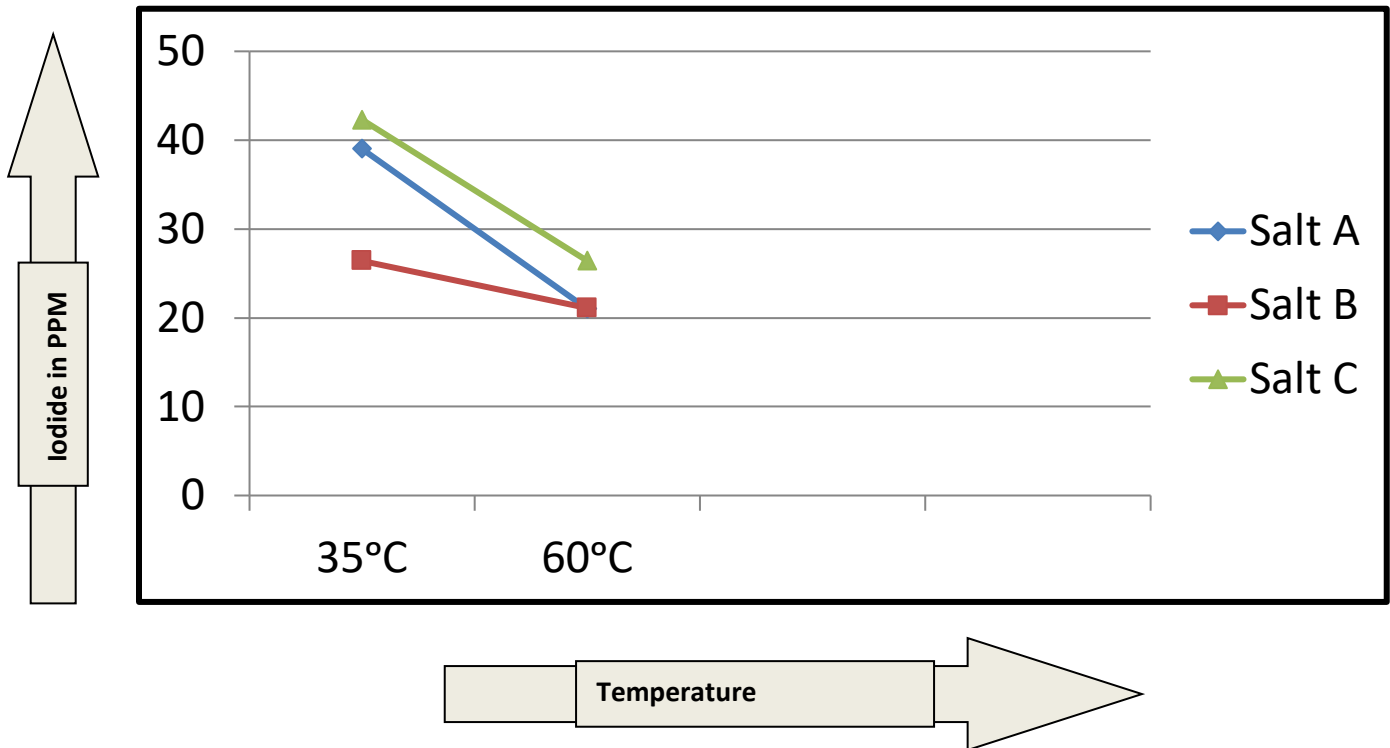
=0.02gm/1Kg or 20.09mg/Kg

=21PPM

Table showing amount of Iodide in common salt and quantity of salt to be consumed accordingly

| S.No. | Common Salt Commercial Brand | Iodide present in salt in PPM before heating | Amount of salt to be consumed to meet daily recommended dose In gm | Iodide present in salt in PPM after heating to 60°C | Amount of salt to be consumed to meet daily recommended dose |
|-------|------------------------------|--|--|---|--|
| 1 | A | 39 | 3.89 | 21 | 7.14 |
| 2 | B | 26.4 | 5.68 | 21.1 | 7.10 |
| 3 | C | 42.3 | 3.54 | 26.4 | 5.68 |

Graph is drawn between temperature and iodine content in PPM



Graph showing the decline in concentration of Iodine in common salt by heating.

FINDINGS:

In this Project we determined the Iodine content in salt of different market available brands. All brands of salts approximately contain 30-40mg/Kg of iodide.

Iodine content in common salt after heating to 60°C, it is found to be decreasing.

We calculated amount of common salt to be taken daily to meet RDA, when salt is not heated and after exposing salt to heat.

Recommended Dietary Allowance (RDA) of Iodide for adults is 150mcg as provided in Dietary Reference intake (DRI) developed by Food and Nutrition Board (FNB).

CONCLUSION:

As we are aware that some diseases like AIDS, Corona, Tuberculosis, cholera, allergy etc caused by attack of foreign microorganisms like bacteria, virus etc. Whereas some diseases like Diabetes, hypertension, heart diseases etc are caused by malnutrition or imbalanced diet and metabolic disorders. Thyroidism is one among them which is caused by insufficient or excessive intake of iodine.

Carbohydrates, Proteins, vitamins, and minerals in daily recommended dose are crucial for keeping the body in working order and for healthy living. Iodine is such a micronutrient which is required in micrograms and plays a key role in maintaining body's metabolism brain and bone development. Common salt is main source of iodine as vegetables; fruits grown in our region are not Iodine rich. Hence ensuring and retaining levels of iodine in common salt is necessary.

It is evident from the experiment that iodine content in salt is declining on heating. Hence it is advised to store common salt in kitchen away from cooking stove area and not to expose to heat and further recommended to add salt to recipes when about to finish cooking a recipe which makes salt to expose to less heat.

Further it is suggestible from experiment to choose and consume common salt based on Thyroid hormone condition of an individual. It is also have to be considered that excessive Iodine can cause alterations in Thyroid function in susceptible individuals, consequently advised to ensure the Iodide levels within safe upper limit. Literature study reveals People are shifting to Himalayan Rock Salt which is non iodized salt in the areas of prevailing hyperthyroidism.

People suffering from hypertension reduce the usage of common salt are recommended to ensure Iodine intake from other sources or supplements.

It is recommended that people with Iodine Deficiency and are relying on supplements to avoid or reduce intake of soya, broccoli, cabbage, cauliflower etc as these foods contains

thiocyanates which interfere with the uptake of iodine by thyroid gland and also advised to avoid Junk food.

People lack awareness about importance of iodide requirement. Though Television advertisements, campaigns and field workers insist buying iodized salt, a number of people continue to buy cheap quality salt. Awareness and Monitoring of consumption of Iodized salt has to be done in line with observing of Global Iodine Deficiency Disorders (IDD) Prevention Day on October 21 every year.



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EXPERIMENT IMAGES







GOVT. DEGREE COLLEGE FOR
WOMEN, KARIMNAGAR
PROJECT REPORT

TOPIC : DETERMINATION OF CONTENTS OF COLD DRINKS

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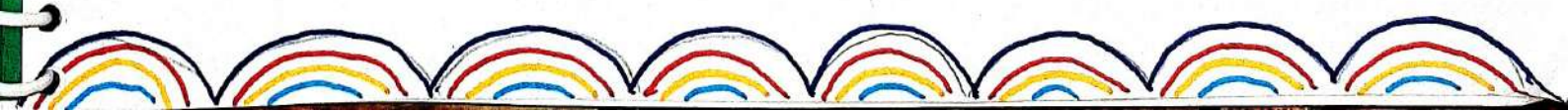
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ACADEMIC YEAR : 2020-2021



CHEMISTRY PROJECT ON DETERMINATION OF CONTENTS OF COLD DRINKS

Determination of contents of cold Drinks :-

Aim :- comparative study and qualitative analysis of different brands of cold drinks available in market.

Apparatus :-

- * Test Tubes
- * Test Tube Holder
- * stop watch
- * Test tube Stand
- * Beaker
- * Bunsen Burner
- * pH papers
- * Tripod Stand
- * china Dish
- * wire Gauge
- * water Bath

chemicals Required :-

- * Iodine Solution
- * POTASSIUM Iodide
- * Sodium Hydroxide
- * lime water
- * Fehling's A & B Solution
- * conc. Nitric Acid
- * Benedict solution
- * Ammonium Molybdate.

Detection of pH :-

Experiment :- Small samples of cold drinks of different brands were taken in a test tube and put on the pH paper. The change in colour of pH paper was noticed and was compared with standard pH scale.

Observation :-

| S.No | Name of the Drink | colour change | pH value |
|------|-------------------|---------------|----------|
| 01. | coca cola | pinkish | 2-3 |
| 02. | Sprite | Dark orange | 3 |
| 03. | limca | light orange | 4 |
| 04. | Fanta | orange | 3-4 |

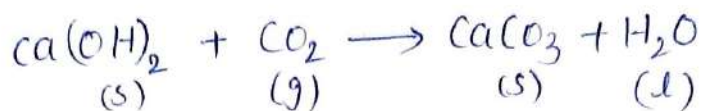
Experiment :- As soon as the bottles were opened, one by one the samples were passed through lime water the lime water turned milky.

Observation :-

| S.No | Name of the Drink | Time Taken (Sec) | conclusion |
|------|-------------------|------------------|----------------------------|
| 01 | cocacola | 28 | CO ₂ IS PRESENT |
| 02 | Sprite | 20 | CO ₂ IS PRESENT |
| 03 | limca | 38 | CO ₂ IS PRESENT |
| 04 | Fanta | 36 | CO ₂ IS PRESENT |

Inference :- All the soft drinks contain dissolved carbon monoxide in water. The CO_2 dissolves in water to form carbonic acid. which is responsible for its tangy taste.

Chemical Reaction :-



3. Test For Glucose

Experiment :- Glucose is a reducing sugar acid. Its presence is detected by the following test.

(a). Benedict's Reagent Test :-

Small samples of cold drinks of different brands were taken in a test tube and a few drops of Benedict's reagent were added. The test tube was heated for few seconds. Formation of reddish colour confirmed the presence of glucose in cold drinks.

observation :-

| S.No | Name of the Drink | observation | conclusion |
|------|-------------------|----------------------------|--------------------|
| 01 | coca cola | Reddish colour precipitate | Glucose is present |
| 02. | Sprite | Reddish colour precipitate | Glucose is present |
| 03. | limca | Reddish colour precipitate | Glucose is present |
| 04. | Fanta | Reddish colour precipitate | Glucose is present |

Inference :- All the samples gave positive test for glucose with Benedict's reagent. Hence all the drink contain glucose.

⑤. Fehling's solution Test :-

Small samples of cold drinks of different brands were taken in test tube and a few drops of Fehling's - A solution and Fehling's - B solution was added in equal amount. The test tube was heated in water bath for 10 minutes. Appearance of brown precipitate confirmed the presence of glucose in cold drinks.

Observation :-

| S.No | Name of the Drink | Observation | Conclusion |
|------|-------------------|---------------------------|--------------------|
| 01. | coca cola | Reddish brown precipitate | Glucose is present |
| 02. | sprite | Reddish brown precipitate | Glucose is present |
| 03. | limca | Reddish brown precipitate | Glucose is present |
| 04. | Fanta | Reddish brown precipitate | Glucose is present |

Inference :- All samples gave positive test for glucose with Fehling's (A & B) solutions. Hence all the cold drinks contain glucose.

4. Test For phosphate :-

Experiment :- Small samples of each brand of cold drinks were taken in separate test tubes and ammonium molybdate followed by concentrated Nitric Acid (HNO_3) was added to it. The solution was heated. Appearance of canary-yellow precipitate confirmed the presence of phosphate ions in cold drinks.

observation :-

| S.No | Name of Drink | observation | conclusion |
|------|---------------|---------------------------|-----------------------|
| 01. | coca cola | canary yellow precipitate | phosphate is present |
| 02. | Sprite | canary yellow precipitate | phosphate is present |
| 03. | limca | canary yellow precipitate | phosphate is present. |
| 04. | Fanta | canary yellow precipitate | phosphate is present. |

Inference :- All the drinks samples gave positive test for phosphate ions. Hence all the cold drinks contain phosphate.

5. Test For Alcohol :-

Experiment :- Small samples of each brand of cold drinks were taken in separate test tubes and Iodine followed by Potassium Iodide and Sodium Hydroxide (NaOH) solution was added to each test tube. then the test tubes were heated in hot water bath for 30 minutes. Appearance of yellow coloured precipitate confirmed the presence of alcohol in cold drinks.

observation :-

| S.No | Name of Drink | observation | conclusion |
|------|---------------|--------------------|--------------------|
| 01. | cocacola | yellow precipitate | Alcohol is present |
| 02. | Sprite | yellow precipitate | Alcohol is present |
| 03. | Limca | yellow precipitate | Alcohol is present |
| 04. | Fanta | yellow precipitate | Alcohol is present |

Inference :- All the cold drinks samples gave positive test for alcohol hence all the cold drinks contain alcohol.

Chemical Reaction :-



6. TEST FOR SUCROSE :-

Experiment :- 5 ml samples of each brand of cold drinks were taken in separate china dishes and were heated very strongly until changes occur. Black coloured residue left confirmed the presence of sucrose in cold drinks.

Observation :-

| S.No. | Name of drink | observation | conclusion |
|-------|---------------|---------------|---------------------|
| 01. | Coca cola | Black Residue | Sucrose is present |
| 02. | Sprite | Black Residue | Sucrose is present |
| 03. | Limca | Black Residue | Sucrose is present |
| 04. | Fanta | Black Residue | Sucrose is present. |

Inference :- All the Brands of cold drinks contain Sucrose. But amount of sucrose varies in each brand of drink. Fanta contains highest amount of sucrose.

Result :- After conducting several tests. It was concluded that the different brands of cold drink namely

1. Coca Cola
2. Sprite
3. Limca
4. Fanta

All contains glucose, alcohol, sucrose, phosphate and CO_2 . All cold drinks are acidic in nature on comparing the pH value of different brands, Coca Cola is the most acid and Limca is least acidic of all the four brands taken. Among the four samples of cold drinks taken, Sprite has the maximum amount of dissolved carbon dioxide and Fanta has minimum amount of dissolved carbon dioxide.

PALINDROMES: A STUDY
JIGNASA STUDY PROJECT 2021-2022



STUDENTS STUDY PROJECT SUBMITTED TO THE COMMISSIONER OF
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TELANGANA

December – 2021

DECLARATION

We do hereby declare that the study project entailed **PALINDROMES: A STUDY** is an original work .it has been carried out by us under the supervision of Smt. Dr.I.J.N.Mallika Lecturer in English GOVERNMENT DEGREE COLLEGE FOR WOMEN, Karimnagar,Telangana.

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Palindrome – A Study

1. Introduction

When creating, famous writers like to use English words cleverly. For example, in William Shakespeare's *A Midsummer Night's Dream* there is such oxymoronic words as follows:

"A tedious brief scene of young Pyramus

And his love Thisby; very tragical mirth.'

Merry and tragical! tedious and brief!

That is hot ice and wondrous strange snow."

How shall we find the concord of this discord?

In this poem, "Merry and tragical", "tedious and brief", "hot ice", "wondrous strange" and "the concord of this discord", all of the collocations are contradictory and antonyms. Used together, those apparently contradictory words produce a special effect: to profoundly reveal the inner conflict and complex emotions of the speaker, which enhances the literariness of the poem.

There is a famous saying by Napoleon when he was exiled to the Mediterranean island of Elba, which is "Able was I ere I saw Elba". It can be read both forward and backward with the similar or different meaning. With a sense of rhythm and a function of enhancing the emphasis and emotion, it makes sentence have not only denotative meaning but also abundant connotative meaning.

Famous persons has paid considerable attention to these special linguistic phenomena and put them into practice and therefore so should we do. We should understand that being a master of words is one of the most important goal for language-learner, and teachers should realize that it is crucial and necessary to help students possess a big vocabulary. Unfortunately, the situation of English vocabulary course in China is not positive, for most of the students think the content is boring, the classroom atmosphere is dull and the process is not interactive. So it is time for teachers to try hard to design a vocabulary course with interesting content to make the lesson vivid and to improve the students' enthusiasm and interest. Here below are many methods, some special and interesting linguistic phenomena in English, for teachers to guide their students to study and at the same time have fun with words, and they are: palindromes, spoonerisms, tongue Twister Fun, malapropisms and oxymoron, etc. And the author in this paper is mainly going to give a brief

introduction to one of these interesting linguistic phenomena: Palindrome.

2. Definition and Origin of Palindrome

In accordance with the definition from Wikipedia, palindrome is a word or phrase which reads the same backward as forward, such as madam or racecar. Sentence-length palindromes may be written when allowances are made for adjustments to capital letters, punctuation, and word dividers, such as "A man, a plan, a canal, Panama!", "Was it a car or a cat I saw?". The word "palindrome" was

coined by the English playwright Ben Jonson in the 17th century from the Greek *palíndromos*, meaning running back again. Some well-known English palindromes are:

- Rise to vote, sir.
- Able was I ere I saw Elba
- Was it a rat I saw?
- Do geese see God?
- King, are you glad you are king?

The Classification of English Palindromes

Palindrome Word which means that the letters in a word can be read backwards or forwards, could be further divided into three categories.

1) backwards or forwards with the same word

Put them in alphabetical order: aha, Bob, civic, dad, deed, deified, did, Eve, eve, eye, ewe, gig, kayak, level, madam, minim, mum, noon, nun, pip, peep, pop, pup, racecar, radar, redder, refer, reviver, repaper, rotator, sees, tat, tenet, tot, Wow

2) backwards or forwards with the different word

rats-star, bad-dab, deer-reed, dog-god, door-rood, draw-ward, keep-peek, live-evil, meet-teem, mood-doom, new-wen, not-ton, now-won, nut-tun, pan-nap, part-trap, pay-yap, pin-nip, pool-loop, reward-drawer, room-moor, step-pets, ten-net, time-emit, tip-pit, tool-loot, top-pot, tops-spot, was-saw, war-raw, wolf-flow, but-tub, put-tup, get-teg, got-tog, smart-trams, rat-tar, are-era and so on.

Palindrome Phrase

A rod, not a bar, a baton, Dora

a Santa at NASA

a Toyota

A war at Tarawa

Palindrome Sentence

In accordance with the Christian legend, when Adam and Eve first met, Adam said to her in palindrome: Madam, I'm Adam. Certainly, there are more Palindrome Sentences, such as: "Murder for a jar of red rum"; "Are we not drawn onwards, we Jews, drawn onward to new era?"

Palindrome Poem

Here a palindrome poem from Roger Scruton is introduced as an example:

Night, whispering to Morning, said:

"Have we death? Is life

Unlimited by prolonged persistence?"

"Birds have nest, as absurdity

Made new for long life"

Said Morning .Morning said:

"Life longs for new - made

Absurdity, as nests have birds -

Persistence prolonged by

Unlimited life is death;" we have said

Morning to whispering Night.

4. The Function and Meaning of Palindromes

Learning Value

First of all

palindromes is an interesting linguistic phenomenon. English palindromes make the word or sentence could be read forward and backward, sometimes with the same meaning and sometimes with the different or even totally opposite meaning, which leaves a "space" for readers and language-learners to find out its secret and surprise and this is one of the sources of interest for students to actively explore and discover something different instead of negatively reciting words. Palindrome puzzles, Palindrome Word Squares etc. makes the boring vocabulary lesson be changed into interesting and interactive practical course. It is because of the exquisite and unique creation and design of palindromes that the study of words, which has been regarded as a kind of boring and tedious study, has become interesting.

Literary Value

"Literariness" is a relatively general and unspeakable connotation existing in the way of expression, including augmentation, narration, exploration and description. Then, palindrome has its literary value because it can increase the "literariness" of one's expression. English palindrome is of beauty and worthy of appreciation for readers. They are designed with great care, they are symmetric in form and rich in meaning, and they are of rhythm and with a function of enhancing the emphasis and emotion. Therefore, English palindrome is actually a kind of figure of speech, which makes it have not only denotative meaning but also abundant connotative meaning.

Practical Value

Moreover, it attracts attention. Many English palindromes function as games. In fact, art, to some extent, has the function of games. The taste for word games is natural and universal for human beings. Palindrome can help us use words to create special mood and add interest. Ingenious word games and the skillful use of palindrome can create a kind of enjoyment for readers, which can not only better express emotions, but also create a better auditory and visual sense of beauty.

Heritage Value

To some extent, it's easy to remember. It is concise and beautiful language carefully designed by people, which is with symmetry, and rich sense of rhythm. Because English palindrome has a sense of rhythm, and is concise, it is good for readers to remember and to hand it down from generation

to generation. A good case for the point is that some life experience in China is summarized by people in palindrome, and because it has such a characteristics “few words but rich meaning”, it is easy to remember.

5. Conclusion

In English vocabulary there are many interesting and meaningful phenomena, such as palindrome etc. It leaves a “space” for language-learners to find out secret and surprise, which is one of the sources of interest for students to actively explore and discover something different instead of negatively reciting words. As teachers we should realize that the traditional boring vocabulary lesson could be changed into the interesting and interactive practical course and it is the task of teachers to design a vocabulary course with interesting content and interactive parts to make the lesson vivid and to improve the students’ enthusiasm and interest.

English palindrome is concise and beautiful language carefully designed by people, which is with symmetry, and rich sense of rhythm. Guiding students to have a study in such a special linguistic phenomenon can help them, on one hand, to improve their sensitivity in vocabulary, and on the other hand, to detect the similarity and difference in aesthetic taste and linguistic expression between Chinese and West people.

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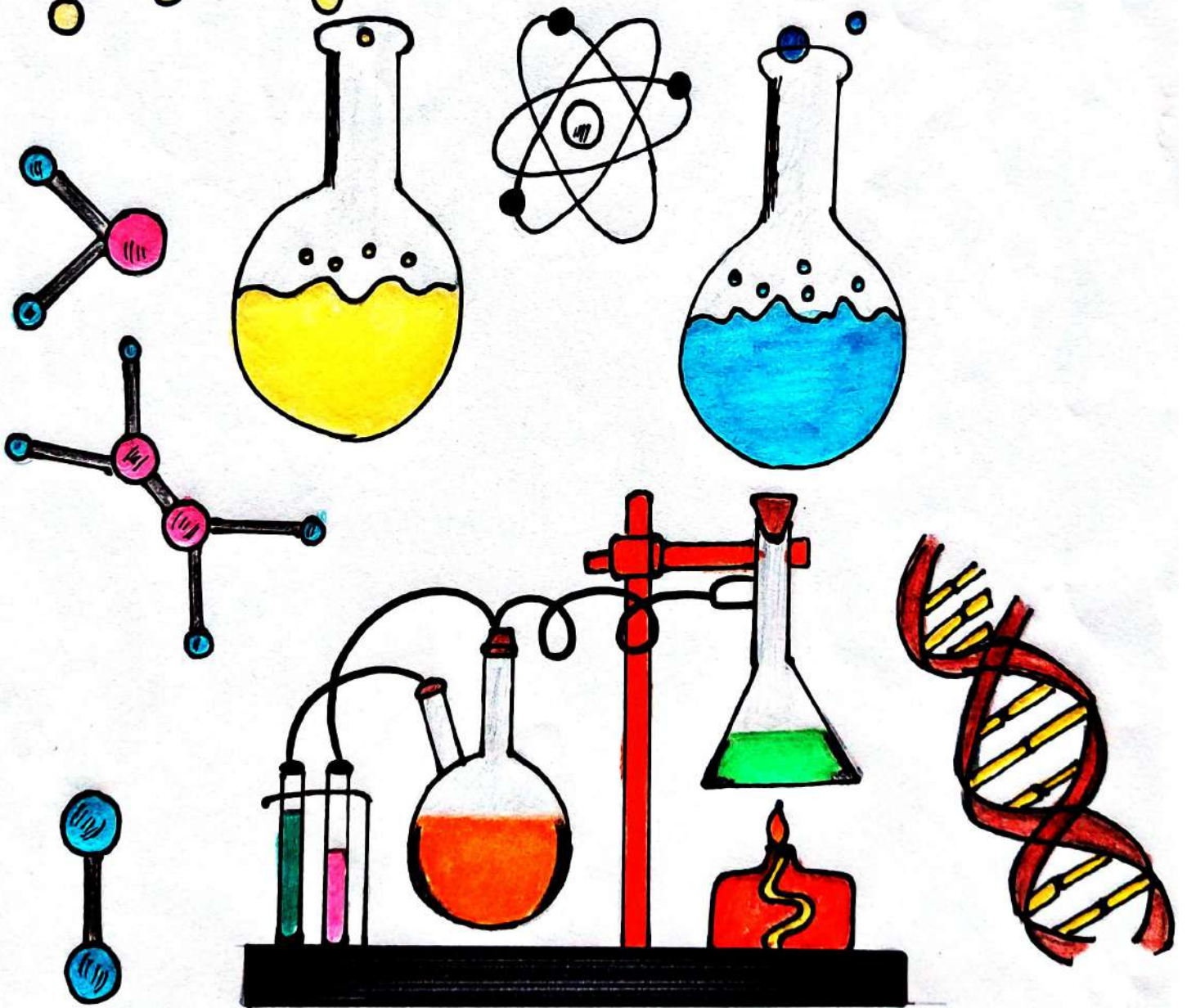
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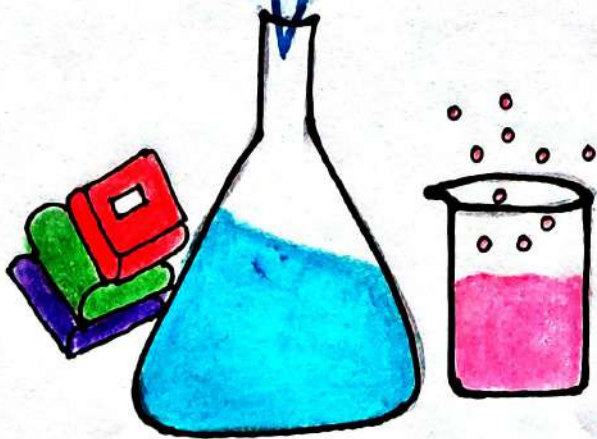
CHEMISTRY



Project

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Karimnagar



Submitted To -
Dr. Prashanthi Maam.

Essential
elements
present in
Food
Items



Fruit

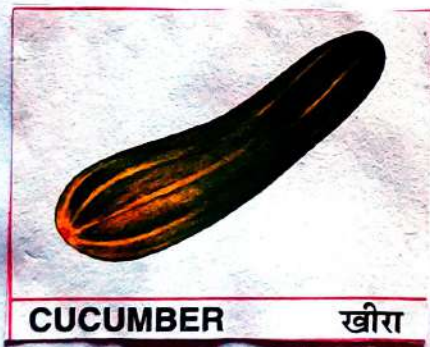
Elements



CHERRY
Beta carotene
Potassium
Vitamin 'A'
Anti-oxidants



PUMPKIN
Minerals
Vitamin A, D, E & K
cholesterol
Dietary fibers



CUCUMBER
Pantothenic acid
Vitamin K
Potassium
Copper



ONION
Chromium
Pyroxine
glutamic acid
sulfonic acid

Fruit

Elements



YAM
Calcium
Iron
manganese
Ribo flavin



FENUGREEK
calcium
Vitamin E
Thyroxine
Iron



GUAVA
Niacin
Copper
Iron
Pyridoxine



MUSKMELON
Carbohydrate
Sodium
folic acid
Fibre

Fruit

Elements



PLUM
Vitamin A
Beta carotin
fibre
oxygen absorbance
capacity



GRAPE - FRUIT
Vitamin C
fibre
Potassium
biotin



WHITE MELON
Potassium
Manganese
Vitamin K
Copper



PEAS
Vitamin B6
Pyridoxine
Thymin
Pantothenic acid

Fruit

Elements



ORANGE
calcium
folic acid
vitamin C
Potassium



MANGO
Sodium
carbohydrates
amino acids
Phytochemical compounds



SUGAR CANE
calcium
alpha hydroxy acids
Iron
Carbon



LEMON
citric acid
Vitamin C
Magnesium
Potassium

Fruit

Elements



SPINACH

Iron

Amino acids

Vitamin E

Vitamin B₆, B₉



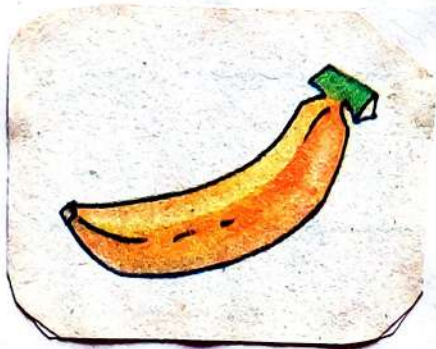
AMLA

Ascorbic acid

Vitamin C

Iron

calcium



BANANA

Vitamin B₆

Vitamin C

Poly phenolic

Fibre



GRAPES

Carbohydrates

Vitamin B₁, B₂, B₃, B₆

Protein

Pantothenic acid

Food Consumption and Lifestyle Pattern of Obese Adolescents and the Impact of Nutrition Intervention in Karimnagar District

*Student Study Project Submitted to the
Commissionerate of Collegiate Education, Hyderabad.*

Under the

JIGNASA

Submitted by

Ayesha Fathima, Areeba, D. Geethanjali, Safia Kousar, P. Supriya

Under the Supervision of

Dr. S. Swetha

M.Sc., PhD, CSIR-UGC-NET

Assistant Professor of Zoology



DEPARTMENT OF ZOOLOGY
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KARIMNAGAR, TELANGANA-505001

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March-2022

DECLARATION

We do hereby declare that work presented in this study project entitled “**Food Consumption and Lifestyle Pattern of Obese Adolescents and the Impact of Nutrition Intervention in Karimnagar District**” has been originally carried out by us under the supervision of **Dr.S.Swetha**, Assistant professor of Zoology, Government Degree college for Women, Karimnagar and has not been submitted either in part or in full for any study project to any other Govt.Degree colleges in Telangana state.

Date: 31-04-2022

Place: Karimnagar

1. Ayesha Fathima

2. Areeba

3. D.Geethanjali

4. SafiaKousar

5. P.Supriya

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Study Project Supervisor

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CSIR- UGC-NET
Assistant Professor



DEPARTMENT OF ZOOLOGY
Government Degree College(W)
Karimnagar, Telangana.

CERTIFICATE

This is to certify that the **JIGNASA** Students' study project entitled "**Food Consumption and Lifestyle Pattern of Obese Adolescents and the Impact of Nutrition Intervention in Karimnagar District**" has been carried out by the Students of B.Sc. Life sciences under my supervision. I further certify that the study project work done by them is original and has not been submitted for any study project either in part or full to any other degree college..

Date: 31-03-2022

(Dr. S. SWETHA)

Place: Karimnagar

Study Project Supervisor

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TEAM OF STUDENTS AND MENTOR

Food Consumption and Lifestyle Pattern of Obese Adolescents and the Impact of Nutrition Intervention in Karimnagar District

Introduction:

Obesity is defined as an excess accumulation of body fat which is the result of a positive energy balance where caloric intake exceeds caloric expenditure. Obesity occurs when a person eats more calories than the body burns up. In every region of the world, obesity has doubled between 1980 and 2008. Today, half a billion people which is 12 per cent of the world's population are obese (Boerma, 2012). As per world health statistics report (2012) of World Health Organisation (WHO), one in six adults is obese, one in ten is diabetic and one in three has raised blood pressure. Obesity is a major public health concern with a highly increasing prevalence in adolescent and childhood populations. Thus, obesity has increased dramatically, particularly since 1980's throughout the world. This trend prompted the World Health Organization in 1998 to recognize a "Global epidemic of obesity".

The World Health Organisation refers obesity as a global epidemic because of rapid increase in the number of overweight and obese individuals in last 20 years. The onset of obesity may occur at any age and it may be triggered by factors such as early weaning, inadequate food intake, eating disorders and problems related to disturbed family relationships.

Whereas the rising prevalence of obesity can be partly explained by environmental changes over the last 30 years, in particular the unlimited supply of convenient, high caloric dense foods together with a sedentary lifestyle, and genetic component also tend to increase the risk of obesity (Lyon and Hirschhorn 2005). There are also disturbing trends such as sedentary work, faulty dietary habits and stress causing activities that aggravates obesity, heart disease and diabetes, particularly among adolescents.

There are many risks and complications with obesity. Although certain medical disorders can cause obesity, less than one per cent of all obesity is caused by physical problems. Physical consequences include increased risk of heart disease, high blood pressure, diabetes, breathing problems, and disturbed sleeping. Obese youth are more likely to have risk factors for cardiovascular disease, such as high cholesterol or high blood pressure. Obese adolescents are more likely to have pre-diabetes, a condition in which blood glucose levels indicate a high risk for development of diabetes (Li et al., 2009; The Centers for Disease Control and Prevention, 2011).

Studies conducted by Freedman et al., (2001) showed that children who became obese as early as two years were more likely to be obese as adults. Obesity is associated with increased risk for many types of cancer such as colon, endometrium, Oesophagus, kidney, pancreas, gall bladder, thyroid, ovary, cervix, and prostate cancers, as well as multiple myeloma and Hodgkin's lymphoma (Kushi et al., 2006).

Adolescent obesity is also associated with increased risk of emotional problems. Teens with weight problems tend to have much lower self-esteem and be less popular with their peers. Depression, anxiety, and obsessive compulsive disorder can also occur. Adolescents who are obese are at greater risk for bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem (Daniels et al., 2005).

Proper nutrition is essential to keep teens healthy and enable them to grow fitfully. Eating right also helps them to participate better in school and athletic activities. Dietary habits in childhood have an impact on growth, development and disease risk throughout life (Wright et al., 2001).

Obesity and overweight are strongly associated with certain types of diets, such as those that include large amounts of fats, animal-based foods and processed foodstuffs. The Dietary Guidelines for Americans recommend that children, adolescents, and adults should limit intake of solid fats (major sources of saturated and trans-fatty acids), cholesterol, sodium, added sugars, and refined grains. Unfortunately, most young people are not following the recommendations set forth in the Dietary Guidelines for Americans (Reedy and Smith, 2010).

Sedentary lifestyle is an important factor, which includes spending no time for outdoor sports and participating in little or no physical activity during leisure time (Varo et al., 2003). Ramachandran et al., (2002) states that physical inactivity plays an important role as a contributing factor for obesity. In a modern affluent society, energy sparing devices also reduce energy expenditure and enhance the tendency to become obese. Various contributing factors to obesity and overweight are socioeconomic group, family history and diet and lifestyle of the children.

In the last decade, several international reports (International Life Sciences Institute, 2002) have addressed the significant increase in the prevalence of overweight and obesity among children and adolescents. Invariably, they underline the importance of developing effective population- based preventive measures, specifically targeting the lower socioeconomic part

of the population. It is generally accepted that both sides of the energy balance, that is, dietary and physical activity behaviour, should be considered for a prevention program to have optimal effects (Kremers et al., 2005).

Healthy eating in childhood and adolescence is important for proper growth and development and can prevent health problems such as obesity, dental caries, iron deficiency, and osteoporosis. Healthy eating helps prevent high cholesterol and high blood pressure and helps reduce the risk of developing chronic diseases such as cardiovascular disease, cancer, and diabetes (Dietary Guidelines Advisory Committee, 2010). Proper nutrition promotes the optimal growth and development of children. A poor diet can lead to energy imbalance (e.g., eating more calories than one expends through physical activity) and can increase one's risk for overweight and obesity (Sharon et al., 2008). The dietary and physical activity behaviours of adolescents are influenced by many sectors of society, including families, communities, schools, child care settings, medical care providers, faith-based institutions, government agencies, the media, and the food and beverage industries and entertainment industries.

Physical activity plays an important role in the prevention of becoming overweight and obese in childhood and adolescence, and reducing the risk of obesity during adulthood. Puberty and the following adolescent period are acknowledged as particularly vulnerable times for the development of obesity due to sexual maturation and, in many individuals, a concomitant reduction in physical activity.

Schools play an important and critical role by establishing a safe and supportive environment with policies and practices that support healthy behaviours. Schools also provide opportunities for students to learn about and practice healthy eating habits and positive physical activity behaviours. Schools play a critical role in promoting the health and safety of young people and helping them establish lifelong healthy behaviours. Scientific reviews have documented that school health programmes can have positive effects on educational outcomes, as well as health-risk behaviours and health outcomes (Basch et al., 2010). Similarly, programs that are primarily designed to improve academic performance are increasingly recognized as important public health interventions (Muenning and Woolf, 2007).

Obesity frequently becomes a lifetime issue. The reason most obese adolescents gain back their lost pounds is that they tend to go back to their old habits of eating and exercising. An obese adolescent must therefore learn to eat and enjoy healthy foods in moderate amounts

and to exercise regularly to maintain a desired weight. Parents of an obese child can improve their child's self-esteem by emphasizing their strengths and positive qualities rather than just focusing on their weight problem.

When a child or adolescent with obesity also has emotional problems, a child and adolescent psychiatrist can work with the child's family physician to develop a comprehensive treatment plan. Such a plan would include reasonable weight loss goals, dietary and physical activity management, behaviour modification, and family involvement.

Obese adolescents have a greater probability of turning into obese adults unless some interventions are made. The study on **“Food Consumption and Lifestyle Pattern of Obese Adolescents and the Impact of Nutrition Intervention in Karimnagar District”** will enable the individual to observe a marked difference with the food consumption pattern and lifestyle habits. This study will prove that an effective intervention will bring an effective impact among the obese adolescents.

Hence this study was undertaken with the following objectives:

- ^ To determine the prevalence of obesity among adolescents in the selected schools of karimnagar.
- ^ To assess the health status of boys and girls among the selected Adolescents in the age group of 12-17 years.
- ^ To assess the contributing factors of obesity among adolescents.
- ^ To analyse the food consumption and lifestyle pattern of the selected obese adolescents.
- ^ To interrelate the etiological factors, food consumption and lifestyle pattern of obese adolescents with underweight, normal and overweight adolescents.
- ^ To promote healthy eating habits and positive lifestyle practices to the selected adolescents through nutrition intervention programme.
- ^ To evaluate the impact of nutrition intervention programme among the selected obese adolescents in the selected schools of Karimnagar District.

Review of Literature:

Out of all the stages of life, the most fascinating is the adolescent age. During this phase, a child is going through many changes in his/her body - changes occur in hormones, skin, height, weight, etc. The child observes these changes and makes amendments in his/her eating habits without appropriate guidance. Adolescence is the time to inculcate food and exercise habits which ensure good health forever.

Kaplan (2004) describes nutrition as a process by which all of the food a person eats are taken in and the nutrients that the body needs are absorbed. Good nutrition for adolescents can help prevent disease and promote proper health, growth, and development.

According to Sachdeva (2006), adolescents have typically been considered a low risk group for poor health, and often receive few health care resources and scant attention. However, this approach ignores the fact that many health problems later in life can be improved or avoided by adopting healthy lifestyle habits in adolescence. Nutritional disorders in adolescents are associated with several serious psychological, sociological morbidity, biological, and considerable mortality.

Investigations of school-aged children and adolescents in Great Britain found that they were at about eight times the risk of developing an eating disorder if they were dieting. Although not all of these children were overweight, many adolescents who are not overweight diet, but certainly the overweight individuals were very well represented in the study. Hypertension, diabetes mellitus, sleep apnea, orthopaedic abnormalities, pseudotumor cerebri, and severe psychosocial stress are conditions for which we may recommend very quick or rapid weight loss because they can have such severe consequences (Fleming and Towey, 2003).

Reviews of child and adolescent obesity treatment programmes describe essential components for successful interventions, focusing both on treatment components of programs as well as organizational factors. Adolescent obesity interventions in clinical settings generally offer assessment and counseling related to diet and physical activity as well as behaviour strategies such as problem solving, stimulus control, or behaviour modification (Epstein et al., 2001). Obesity is a complex health issue. Health professionals, parents, and community leaders should all consider areas of young people's lives where they can make a difference in nutrition and physical activity. Professionals need to reinforce the role of parental modeling in adolescent overweight and obesity reduction.

Methodology:

Methodology” involves a set or system of methods, principles and rules for regulating a given discipline. The methodology adopted for the present study entitled “Food Consumption and Lifestyle Pattern of Obese Adolescents and the Impact of Nutrition Intervention in Karimnagar District” consisted of the following phases which is given below.

A. Phase I

Selection of adolescents in the selected schools of Karimnagar District

B. Phase II

Assessment of nutritional status

C. Phase III

Analysing the demographic profile, family history, food consumption pattern and lifestyle habits of the selected adolescents using questionnaires

D. Phase IV

Awareness on obesity and promoting healthy eating habits and positive lifestyle practices

D. Phase V

Implementing nutrition intervention strategies to overcome obesity

PHASE I

SELECTION OF ADOLESCENTS IN THE KARIMNAGAR DISTRICT:

Selection of area:

Telangana is one of the 28 states of India. The state of Telangana, situated in the southcentral stretch of the Indian peninsula on the high deccanplateau. The major districts include Hyderabad, Warangal, Nizamabad, Khammam, Karimnagar and Ramagundam. Based on convenience sampling technique, the investigators selected Karimnagar District in telangana.

The samples were selected based on the following criteria:

- Adolescents belonging to the age group of 12 to 17 years.

- Adolescents who are not included in any similar researches.

Only those samples who fulfilled the above mentioned criteria and volunteered to participate were included in the study.

Stratified sampling is a probability sampling technique where in the researcher divides the entire population into different subgroups or strata, then randomly selects the final subjects proportionally from the different strata (Castillo, 2009). A stratified random sampling technique was adopted to select the samples to get an equal distribution of adolescents from each age group. The total sampling unit comprises of 6000 adolescents. One thousand and two hundred samples were selected from karimnagar (600 boys and 600 girls). One hundred boys and one hundred girls were selected from each age group.

PHASE II

ASSESSMENT OF NUTRITIONAL STATUS

To assess the nutritional status of the selected adolescents, their anthropometric measurements and the food consumption pattern through diet survey was conducted.

i) Anthropometric measurements

School authorities were requested by the investigators to provide a list of children attending classes from 7th to 12th standards. Consent letters were obtained from the school authorities and parents to take the anthropometric measurements (height, weight, and Body Mass Index) and also to collect data. The total samples comprises of 6000 adolescents. Nutritionally, the samples were assessed through anthropometric measurements and dietary survey. The anthropometric measurements such as height, weight and Body Mass Index (BMI) were recorded by the investigators.

Height

Adolescence is a time of accelerated growth in stature, after which final height is achieved. The measurement of height is a standard component of most fitness assessments. Standing height is the measurement of the maximum distance from the foot to the highest point on the head, when the subject is facing directly ahead. A measuring tape was placed against a wall. The subject was asked to remove the shoes, made to stand straight with feet together and

arms by the sides. Heels, buttocks and upper back were in contact with the wall when the measurement was made. The result was recorded by the investigators.

Weight

The body weight was recorded using a standard balance scale. The student was asked to step on the scale and stand motionless in the middle of the scale platform with the feet slightly apart and the body weight distributed equally on both feet. The weight was read on the scale and recorded immediately by the investigators.



Weight-Measurement



Height Measurement

Body Mass Index (BMI):

Body mass index (BMI) is defined as the ratio of body weight to body height squared, expressed as kg/m^2 . It is important to consider nutritional status during adolescence.

ii) Dietary survey:

Nutrition is a vitally important part of people's lifestyle, and can affect our health. The Nutrition survey results conducted by Ministry of Health (2011) are used to develop, monitor and improve health and nutrition policies and services, both nationally and locally. The assessment of nutritional status usually involves a single or a combination of direct and/or indirect methods depending on the objective of the assessment. Dietary survey constitutes the most important point of any complete study on nutrition status of individual or group. Dietary survey is the assessment of dietary or nutritional status at intermittent times to detect changes in the dietary or nutritional status of population.

PHASE III

ANALYSING THE DEMOGRAPHIC PROFILE, FOOD CONSUMPTION PATTERN AND LIFESTYLE HABITS OF THE SELECTED ADOLESCENTS USING QUESTIONNAIRES:

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Questionnaires provide a quantitative method of data gathering - the evidence, data or information you find is expressed in numerical terms.

The food consumption pattern and lifestyle pattern of the selected adolescents was compared the above criteria among the different adolescents (underweight, normal, overweight and obese). A self-administered food frequency questionnaire was designed to assess the food consumption pattern of adolescents. The investigator distributed the questionnaires to all the adolescents who attended the school on the day of survey.

The risk factors were assessed using a formulated questionnaire. The contributing factors studied were

- Age
- Family history of obesity
- Unhealthy diet and eating habits

PHASE IV

AWARENESS ON OBESITY AND PROMOTING HEALTHY EATING HABITS AND POSITIVE LIFESTYLE PRACTICES:

The Health Education Programme in this study focused on the following components:

- Lecture
- Pamphlet distribution
- Health camps for parents and teachers



Lecture Session

Pamphlet Distribution

PHASE V

IMPLEMENTING NUTRITION INTERVENTION STRATEGIES TO OVERCOME OBESITY:

A nutrition intervention is a purposefully planned action(s) designed with the intent of changing a nutrition-related behaviour, risk factor, environmental condition, or aspect of health status. The nutrition intervention is typically directed toward resolving the nutrition diagnosis or the nutrition etiology.

Out of 1200 samples, 240 samples were found to be obese. Twenty percent of the obese adolescents were selected as subsamples and were randomly assigned as intervention (N=24) and control (N=24) group.

Combined strategies of nutrition education, dietary modifications and physical activities such as yoga and exercise were recommended to intervention group subsamples.

Evaluation and follow up of the nutrition intervention programme

The follow-up is often as important as the initial contact in gaining subsamples and it was done with a subsequent examination of the subsamples for the purpose of monitoring earlier intervention. The effect of nutrition and lifestyle intervention with monthly follow-up to 9 months and further follow up for 3 months as per regular schedule to assess the outcome of nutrition intervention and to ensure that they are following the healthy food habits and lifestyle.

Evaluation of the efficacy of the intervention programme was obtained by giving the same questionnaire used at the beginning of the study to determine the impact of the nutrition intervention program on the subsamples after the nine months period. The subsamples were asked to state true or false for the given questions. Every correct answer was given one mark and the scores were summed up. These scores constituted the post-intervention score. The mean of the scores were computed and the mean difference (increase) between the pre and post intervention scores determined the increase in knowledge and awareness of the adolescents.

Results and Discussion:

The study entitled 'Food Consumption and Lifestyle Pattern of Obese Adolescents and the Impact of Nutrition Intervention in Karimnagar' was conducted in five phases and the results are discussed under the following heads:

A.PHASE I - ANTHROPOMETRIC MEASUREMENTS OF THE SELECTED ADOLESCENTS:

The adolescents were classified based on Body Mass Index into various nutritional classes. The results of the mean height (cm), mean weight (kg), mean BMI of the adolescents, are presented below.

Mean Height, Weight and BMI of the Selected Adolescents in Karimnagar:

The height of the adolescents was measured in centimeters and result was recorded in the student health record and data log. The body weight of the adolescents was measured in kilograms using a standard balance scale and recorded in the student health record and data log. Body Mass Index (BMI) is a useful tool to identify possible weight problems; it screens children and teens for being obese, overweight, normal and underweight. The optimum mean BMI for adolescents is likely to vary with environmental conditions. The mean height, weight and BMI of the adolescents was elicited based on area, age and gender and presented in the bellow table.

| Age (Years) | Height | | Weight | | BMI | |
|-------------|-------------|--------------|-------------|--------------|-------------|--------------|
| | Boys(N=600) | Girls(N=600) | Boys(N=600) | Girls(N=600) | Boys(N=600) | Girls(N=600) |
| 12 | 1.46±0.08 | 1.54±0.10 | 49.9±10.6 | 56.9±16.3 | 23±3.4 | 24±4.5 |
| 13 | 1.60±0.09 | 1.55±0.07 | 60.7±16.3 | 57.0±11.4 | 23±4.9 | 24±5.7 |
| 14 | 1.71 ±0.11 | 1.62±0.08 | 66.7±19.4 | 64.3±14.8 | 23±4.8 | 24±4.1 |
| 15 | 1.72±0.11 | 1.63±0.07 | 66.8±22.0 | 64.4±18.6 | 23±7.5 | 24±5.7 |
| 16 | 1.77±0.06 | 1.64±0.06 | 72.3±21.6 | 68.0±21.2 | 23±6.5 | 25±6.5 |
| 17 | 1.77±0.06 | 1.64±0.10 | 73.1±20.9 | 68.9±14.3 | 24±6.9 | 26±6.1 |

Table-I The mean height, weight and BMI of the adolescents

Table I shows that the height of the adolescents gradually increases as age increases. It was noted that the mean height was found to be increasing as the age increases and also shows that weight of the adolescents increases as age increases. From the Table I, it is evident that

the BMI of the adolescents is constantly increasing as the age increases. In this study, the Table I show that Girls had a higher BMI while compared with boys of the same age.

B. PHASE II - HEALTH STATUS OF ADOLESCENTS IN THE KARIMNAGAR DISTRICT

The health status of the adolescents in the Karimnagar District was assessed by calculating BMI by using BMI reference chart developed by Centers for Disease Control and Prevention (2000). The health status of adolescents, prevalence of obesity and self perception of health status by the adolescents are discussed below.

1. Health Status of the Selected Adolescents

BMI is a reliable indicator of body mass fat for children and teens. BMI was classified using CDC percentiles (Centers for Disease Control and Prevention, 2000). Table II shows the prevalence of obesity among the selected adolescents.

| Health status | Boys(N=600) | | Girls(N=600) | |
|---|-------------|-----|--------------|-----|
| | NO | % | NO | % |
| Underweight(<5thpercentile) | 204 | 34 | 156 | 26 |
| Normal (5th to <85th percentile) | 96 | 16 | 114 | 19 |
| Overweight(85 th to<95th percentile) | 126 | 21 | 138 | 23 |
| Obese (>95th percentile) | 174 | 29 | 192 | 32 |
| Total | 600 | 100 | 600 | 100 |

Table II -The prevalence of obesity among the selected adolescents.

It is evident from the Table II, among the selected adolescents, boys and girls with normal BMI were 16 per cent and 19 per cent respectively. The prevalence of overweight was 21 per cent among boys and 23 per cent among girls. The prevalence of obesity was 29 per cent in boys and 32 per cent in girls. The prevalence of underweight was 34 per cent in boys and 26 per cent in girls. Girls had a higher prevalence rate of overweight and obesity while compared with boys.

C. PHASE III - EPIDEMIOLOGICAL FACTORS OF OBESITY AMONG SELECTED ADOLESCENTS:

1. Socioeconomic Factors

Certain social and economic issues may be linked to obesity. Some adolescents may not have safe areas to exercise, some may not have been taught the healthy ways of cooking, or some may not have money to buy healthier foods. In addition, spending time with people may influence the weight of an individual - a person may more likely to become obese if he have obese friends or relatives.

1A. Socioeconomic Status of the Selected Adolescents

The overall prevalence of overweight and obesity and its relationships with socioeconomic status are presented in Table III A

SOCIOECONOMIC STATUS OF THE SELECTED ADOLESCENTS

| Income | Underweight (N=360) | | Normal (N=204) | | Over weight (N=268) | | Obese (N=368) | |
|--------|------------------------|----|-------------------|----|------------------------|----|------------------|----|
| | NO | % | NO | % | NO | % | NO | % |
| High | 90 | 25 | 43 | 21 | 65 | 24 | 298 | 81 |
| Middle | 123 | 34 | 94 | 46 | 179 | 68 | 51 | 14 |
| Low | 147 | 41 | 67 | 33 | 24 | 8 | 19 | 5 |

Socioeconomic status was related to children's risks of being obese or overweight and high socioeconomic status who were at a higher risk of obesity, while middle socioeconomic status were at higher risk of overweight. Eighty one per cent of adolescents who belonged to the higher socioeconomic status were found to be obese, while sixty eight are classified in the middle socioeconomic status was overweight. The prevalence of obesity was found to be very low (5 per cent) in adolescents from the lower socioeconomic group whereas the prevalence of overweight among adolescents was high in middle socioeconomic status (68 per cent) as compared to high socioeconomic status (24 per cent). However, the prevalence of obesity was the lowest in the low socioeconomic group. This findings show that socioeconomic status is related to obesity.

1B. Obesity and Socioeconomic Status by Age and Gender

Prevalence of obesity between boys and girls related to their socioeconomic status by age and gender has been given in Table III B

| Age (Years) | Boys | | | | | | Girls | | | | | |
|--------------|--------------|------------|----------------|------------|------------|------------|--------------|------------|----------------|------------|------------|------------|
| | High (N=406) | | Middle (N=147) | | Low (N=47) | | High (N=433) | | Middle (N=115) | | Low (N=52) | |
| | NO | % | NO | % | NO | % | NO | % | NO | % | NO | % |
| 12 | 77 | 19 | 39 | 27 | 0 | 0 | 70 | 16 | 54 | 47 | 0 | 0 |
| 13 | 78 | 19 | 31 | 21 | 0 | 0 | 81 | 19 | 32 | 21 | 0 | 0 |
| 14 | 69 | 17 | 35 | 24 | 0 | 0 | 78 | 18 | 22 | 19 | 9 | 17 |
| 15 | 69 | 17 | 22 | 15 | 10 | 21 | 74 | 17 | 2 | 2 | 18 | 35 |
| 16 | 65 | 16 | 14 | 9 | 11 | 24 | 78 | 18 | 0 | 0 | 25 | 48 |
| 17 | 48 | 12 | 6 | 4 | 26 | 55 | 52 | 12 | 0 | 0 | 0 | 0 |
| Total | 406 | 100 | 147 | 100 | 47 | 100 | 433 | 100 | 115 | 100 | 52 | 100 |

Table III B Obesity and Socioeconomic Status by Age and Gender

The Table III B interrelates the adolescent obesity to socioeconomic status, though the relationships differ very little among gender. The investigator used family income as a primary indicator of socioeconomic status. From the above Table III B, it is clear that most of the adolescents were from the high family income indicating their standard of living is high. It was also seen that none of the boys in the low income group were obese.

2. Comparison of the characteristics among selected adolescents

The basic characteristics of the adolescents such as dietary habit, meal pattern, restaurant visit, consumption of junk foods, day nap, habit of intake of medications, participation in weight management programmes and family history were discussed under this section.

2A. Comparison of the Characteristics among Adolescent Boys

The basic characteristics of adolescent boys who were underweight, normal, overweight and obese were compared and the data is indicated below in the below Table III C

Table III C-COMPARISON OF THE CHARACTERISTICS AMONG ADOLESCENT BOYS

| Characteristics | Underweight (N=180) | | Normal (N=128) | | Over weight (N=104) | | Obese (N=188) | |
|--|------------------------|-----|-------------------|-----|------------------------|-----|------------------|-----|
| | No | % | No | % | No | % | NO | % |
| Age (12-17) | 180 | 100 | 128 | 100 | 104 | 100 | 188 | 100 |
| Dietary habit | | | | | | | | |
| Veg | 1 | 1 | 4 | 3 | - | - | - | - |
| Non Vegetarian | 179 | 99 | 124 | 97 | 104 | 100 | 188 | 100 |
| Meal pattern | | | | | | | | |
| <2 | 124 | 69 | 15 | 12 | 2 | 2 | - | - |
| 3 | 48 | 27 | 109 | 85 | 61 | 59 | 154 | 82 |
| >4 | - | - | 3 | 2 | 41 | 39 | 33 | 17 |
| Skipping of meals | 8 | 4 | 1 | 1 | 0 | 0 | 1 | 1 |
| Restaurant visit | | | | | | | | |
| Daily | 1 | 1 | 1 | 1 | 68 | 66 | 160 | 86 |
| Weekly | 152 | 84 | 80 | 62 | 33 | 31 | 23 | 13 |
| Rarely | 27 | 15 | 47 | 37 | 3 | 3 | 5 | 3 |
| Consumption of junk foods | | | | | | | | |
| Daily | 9 | 5 | 21 | 16 | 90 | 86 | 152 | 81 |
| Weekly | 41 | 23 | 31 | 24 | 9 | 9 | 30 | 16 |
| Rarely | 130 | 72 | 76 | 60 | 5 | 5 | 6 | 3 |
| Medications for weight reduction | | | | | | | | |
| Yes | - | 0 | 12 | 9 | 5 | 5 | 23 | 12 |
| No | 180 | 100 | 116 | 91 | 99 | 95 | 165 | 88 |
| Day nap | | | | | | | | |
| Yes | 97 | 54 | 38 | 30 | 82 | 78 | 173 | 92 |
| No | 83 | 46 | 90 | 70 | 23 | 22 | 15 | 8 |
| Participation in weight management programmes | | | | | | | | |
| Yes | 6 | 3 | 6 | 5 | 18 | 19 | 28 | 15 |
| No | 174 | 97 | 122 | 95 | 86 | 81 | 160 | 85 |
| Family history of obesity | | | | | | | | |
| Yes | 4 | 2 | 5 | 4 | 34 | 33 | 94 | 50 |
| No | 176 | 98 | 123 | 96 | 70 | 67 | 94 | 50 |

Among the selected adolescent boys, non-vegetarianism dominated by 99 per cent of underweight, 97 per cent of normal weight, and 100 per cent of overweight and obese boys. Thirty nine per cent of overweight boys and 17 per cent of obese boys followed four meal patterns. Four per cent of underweight boys had the habit of skipping meals and breakfast. Eighty six per cent of obese boys and 66 per cent of overweight boys visited restaurants daily, whereas 81 per cent of overweight and 86 per cent of obese boys consumed junk foods every day in some form or other. Ninety two per cent of obese boys had the habit of napping during day time and holidays. Twelve per cent of obese boys tried medications for weight reduction and only 15 per cent of obese boys participated in weight management programmes. It is noted from the Table III C 50 per cent of obese boys had evidence of family history of obesity, whereas the rest did not have any family history of obesity.

2.B. COMPARISON OF THE CHARACTERISTICS AMONG ADOLESCENT GIRLS

Table III-D gives the details about basic characteristics of underweight, normal, overweight and obese girls. As in boys, non-vegetarianism dominated by 99 per cent of underweight, 98 per cent of normal weight, and 100 per cent of overweight and obese girls. The below Table III-D shows that 49 percent of overweight girls and 20 per cent of obese girls followed four meal patterns. Seven per cent of underweight girls and six per cent of girls with normal weight had the habit of skipping meals and breakfast whereas none of the obese girls skipped meals and breakfast. Eighty five per cent of obese girls and 80 per cent of overweight girls visited restaurants daily, whereas 84 per cent of obese and 95 per cent of overweight girls had the habit of consuming junk foods every day. Ninety six per cent of obese girls had the habit of napping during day time and holidays. Thirteen per cent of obese girls tried medications to lose weight, and it is also noted that only 21 per cent of obese girls participated in weight management programmes. Thirty five per cent of obese girls had the evidence of family history of obesity in their families, whereas the rest did not have any history of obesity in their families.

COMPARISON OF THE CHARACTERISTICS AMONG ADOLESCENT GIRLS

| Characteristics | Underweight (N=160) | | Normal (N=122) | | Over weight (N=138) | | Obese (N=180) | |
|--|------------------------|-----|-------------------|-----|------------------------|-----|------------------|-----|
| | NO | % | NO | % | NO | % | NO | % |
| Age (12-17) | 160 | 100 | 122 | 100 | 138 | 100 | 180 | 100 |
| Dietary habit | | | | | | | | |
| Veg | 1 | 1 | 2 | 2 | 63 | - | - | - |
| Non Vegetarian | 159 | 99 | 120 | 98 | 104 | 100 | 188 | 100 |
| Meal pattern | | | | | | | | |
| <2 | 118 | 74 | 29 | 24 | 1 | 1 | - | - |
| 3 | 21 | 13 | 82 | 67 | 68 | 49 | 144 | 80 |
| >4 | 10 | 6 | 4 | 3 | 68 | 49 | 36 | 20 |
| Skipping of meals | 11 | 7 | 7 | 6 | 1 | 1 | - | - |
| Restaurant visit | | | | | | | | |
| Daily | 14 | 9 | 10 | 8 | 108 | 80 | 153 | 85 |
| Weekly | 117 | 73 | 85 | 70 | 26 | 20 | 27 | 15 |
| Rarely | 29 | 18 | 27 | 22 | 4 | 3 | - | - |
| Consumption of junk foods | | | | | | | | |
| Daily | 22 | 14 | 19 | 16 | 131 | 95 | 151 | 84 |
| Weekly | 56 | 35 | 56 | 46 | 3 | 2 | 27 | 15 |
| Rarely | 82 | 51 | 46 | 38 | 4 | 3 | 2 | 1 |
| Medications for weight reduction | | | | | | | | |
| Yes | 0 | 0 | 11 | 9 | 7 | 5 | 22 | 12 |
| No | 160 | 100 | 111 | 91 | 131 | 95 | 158 | 88 |
| Day nap | | | | | | | | |
| Yes | 114 | 71 | 43 | 35 | 108 | 78 | 173 | 96 |
| No | 46 | 29 | 79 | 65 | 30 | 22 | 7 | 4 |
| Participation in weight management programmes | | | | | | | | |
| Yes | 0 | 0 | 16 | 13 | 18 | 13 | 23 | 13 |
| No | 160 | 100 | 106 | 87 | 120 | 87 | 157 | 87 |
| Family history of obesity | | | | | | | | |
| Yes | 3 | 2 | 4 | 3 | 43 | 31 | 63 | 35 |
| No | 157 | 98 | 118 | 97 | 65 | 69 | 117 | 65 |

Familial Tendency of Obesity:

A total of 1301 (22 per cent) out of 6000 adolescents reported to have a positive family history of obesity among first, second and third degree relatives; whereas the selected adolescents were not sure whether any of their fourthdegree relatives had ever been diagnosed for obesity.

Family History of Obesity among Selected Adolescents

FAMILY HISTORY OF OBESITY AMONG SELECTED ADOLESCENTS

| 'Relationship | Boys(N=600) | | | Girls(N=600) | | |
|--------------------------------|-------------|-----|----|--------------|-----|----|
| | Total No | NO | % | Total No | NO | % |
| Ist degree | | | | | | |
| Father | 317 | 101 | 32 | 219 | 105 | 48 |
| Mother | 351 | 112 | 32 | 279 | 106 | 38 |
| IInd Degree | | | | | | |
| Brother | 226 | 79 | 35 | 211 | 84 | 40 |
| Sister | 289 | 98 | 34 | 204 | 110 | 54 |
| Paternal grand father | 185 | 85 | 46 | 173 | 97 | 56 |
| Paternal grand mother | 257 | 90 | 35 | 217 | 100 | 46 |
| Maternal grand father | 267 | 91 | 34 | 239 | 103 | 43 |
| Maternal grand mother | 307 | 83 | 27 | 279 | 109 | 39 |
| IIIrd Degree | | | | | | |
| Uncle | 211 | 106 | 50 | 252 | 108 | 40 |
| Aunt | 335 | 117 | 35 | 277 | 108 | 39 |
| Paternal grand father | 115 | 29 | 26 | 127 | 35 | 28 |
| Paternal grand mother | 127 | 34 | 27 | 136 | 38 | 28 |
| Maternal grand father | 94 | 24 | 26 | 151 | 39 | 26 |
| Maternal grand mother | 156 | 37 | 24 | 159 | 41 | 26 |

Table V shows the details of familial tendency of obesity among first, second and third degree relatives of the adolescents (N=1200).

Among boys, 32 per cent of their fathers and mothers, 35 per cent of their brothers and 34 per cent of their sisters reported that they were obese. Similarly, among girls, 48 per cent of their fathers, 38 per cent of their mothers, 40 per cent of their brothers, 54 per cent of their sisters were obese. Positive family history is a strong indication of genetic susceptibility to obesity

D. PHASE IV - FOOD CONSUMPTION AND LIFESTYLE PATTERN OF THE SELECTED ADOLESCENTS

1. Food Consumption Pattern

Pattern of food intake of the adolescents were estimated using a food frequency questionnaire.

a. Cereals

Cereal is already one of the healthiest breakfast choices you can make. In their natural form (as in whole grain), they are a rich source of vitamins, minerals, carbohydrates, fats, oils, and protein. However, when refined by the removal of the bran and germ, the remaining endosperm is mostly carbohydrate and lacks the other important nutrients. The below Table IV-A shows that 95 per cent of normal weight adolescents and 16 per cent of obese adolescents consumed food products such as roti, chappati, dosa made out of wheat every day, whereas 78 per cent of normal weight adolescents and only 6 per cent of obese adolescents consumed ragi every day in the form of dosa, roti and puttu.

b. Pulses

Pulses constitute essential components of vegetarian diet. Pulses are major source of protein in the Indian vegetarian diets. These are the main source of protein providing essential amino acids to a certain extent. The below Table IV-A shows that majority of the adolescents (99 per cent of normal weight adolescents, 98 per cent of overweight adolescents, 96 per cent of obese adolescents and 82 per cent of underweight adolescents) consumed at least one variety of pulses every day.

c. Vegetables

Vegetables are eaten in a variety of ways, as part of main meals or a part of a item. The nutritional content of vegetables varies considerably, generally they contain little protein or fat, and varying proportions of vitamins such as vitamin A, vitamin K and vitamin B6, provitamins, dietary minerals and carbohydrates. Vegetables contain a great variety of other phytochemicals, some of which have been claimed to have antioxidant, antibacterial, antifungal, antiviral and ant carcinogenic properties. Many vegetables contain high fiber, important for gastrointestinal function.

It is evident from the Table IV A, that 85 per cent of normal weight adolescents and 69 per cent of underweight adolescents consumed green leafy vegetables daily, whereas none of the obese and overweight adolescents consumed greens every day. It was observed that 95 per cent of overweight adolescents and 94 per cent of adolescents with normal weight consumed at least one variety of vegetables every day.

d. Fruits

Eating fruit is healthy. People who eat more fruits and vegetables as part of an overall healthy diet are likely to have a reduced risk of chronic diseases. Fruits provide nutrients vital for health and maintenance of the body. Eating fruits will reduce the calorie intake rather than consuming other snacks which are high in calories. Fruits are good sources of many essential nutrients such as potassium, dietary fiber, vitamin C, and folate (folic acid). The bellow table elicits that 90 per cent of normal weight adolescents and 89 per cent of overweight adolescents made it a point to consume at least one fruit every day. Ten per cent of normal weight adolescents consumed fruits on weekly basis and only 4 adolescents were found to be consuming fruits rarely.

e. Fleshy foods

Meat and meat products are rich sources of protein including fats, vitamin B12, zinc and iron. All non-vegetarian foods are very rich in saturated fatty acids. The habitual and frequent use of large amounts of flesh foods in the diet is actually one of the causes of degenerative disease in a substantial percentage of the population. The decrease in, or elimination of, flesh foods from the diet is one of the important steps towards optimal health.

TABLE IV A- FOOD CONSUMPTION PATTERN IN THE ADOLESCENTS

| Food items | Weight criteria | Frequency of consumption | | | | | | | |
|-------------------------------|---------------------|--------------------------|-----|--------|----|--------|----|-----|----|
| | | Daily | | Weekly | | Rarely | | Nil | |
| | | NO | % | NO | % | NO | % | NO | % |
| Cereals | | | | | | | | | |
| Rice | Under weight(N=360) | 360 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Normal(N=206) | 204 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Over weight(N=268) | 268 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Obese(N=368) | 368 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wheat | Under weight(N=360) | 270 | 75 | 54 | 15 | 36 | 10 | 0 | 0 |
| | Normal(N=204) | 194 | 95 | 10 | 5 | 0 | 0 | 0 | 0 |
| | Over weight(N=268) | 88 | 33 | 80 | 30 | 100 | 37 | 0 | 0 |
| | Obese(N=368) | 59 | 16 | 92 | 25 | 217 | 59 | 0 | 0 |
| Ragi | Under weight(N=360) | 187 | 52 | 129 | 35 | 37 | 10 | 7 | 3 |
| | Normal(N=204) | 159 | 78 | 43 | 21 | 2 | 1 | 0 | 0 |
| | Over weight(N=268) | 46 | 17 | 72 | 27 | 51 | 19 | 99 | 37 |
| | Obese(N=368) | 22 | 6 | 0 | 0 | 3 | 1 | 343 | 93 |
| Pulses | Under weight(N=360) | 301 | 82 | 59 | 18 | 0 | 0 | 0 | 0 |
| | Normal(N=204) | 202 | 99 | 2 | 1 | 0 | 0 | 0 | 0 |
| | Over weight(N=268) | 263 | 98 | 5 | 2 | 0 | 0 | 0 | 0 |
| | Obese (N=368) | 353 | 96 | 15 | 4 | 0 | 0 | 0 | 0 |
| Vegetables | Under weight(N=360) | 250 | 69 | 68 | 19 | 28 | 8 | 14 | 4 |
| | Normal(N=204) | 174 | 85 | 28 | 14 | 2 | 1 | 0 | 0 |
| | Over weight(N=268) | 0 | 0 | 218 | 81 | 40 | 15 | 10 | 4 |
| | ObeseN=368) | 0 | 0 | 154 | 42 | 33 | 9 | 181 | 49 |
| Fleshy foods | Under weight(N=360) | 0 | 0 | 165 | 46 | 187 | 52 | 16 | 4 |
| | Normal(N=204) | 2 | 1 | 181 | 89 | 17 | 8 | 4 | 2 |
| | Over weight(N=268) | 4 | 2 | 261 | 97 | 3 | 1 | 0 | 0 |
| | ObeseN=368) | 346 | 94 | 7 | 2 | 15 | 4 | 0 | 0 |
| Milk and Milk products | Under weight(N=360) | 7 | 2 | 343 | 95 | 3 | 1 | 7 | 2 |
| | Normal(N=204) | 202 | 99 | 0 | 0 | 2 | 1 | 0 | 0 |
| | Over weight(N=268) | 246 | 92 | 22 | 8 | 0 | 0 | 0 | 0 |
| | Obese (N=368) | 368 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fruits | Under weight(N=360) | 244 | 67 | 66 | 19 | 50 | 14 | 0 | 0 |
| | Normal(N=204) | 184 | 90 | 20 | 10 | 0 | 0 | 0 | 0 |
| | Over weight(N=268) | 238 | 89 | 8 | 3 | 22 | 8 | 0 | 0 |
| | ObeseN=368) | 184 | 50 | 4 | 1 | 180 | 49 | 0 | 0 |

f. Milk and Milk Products

Milk and milk products contain many nutrients and provide a quick and easy way of supplying these nutrients to the diet within relatively few calories. The frequency of consumption of milk and milk products by the adolescents is depicted in Table IV A.

2B. Snack Consumption Pattern by the Selected Adolescents

A comparison of the frequency of snack consumption among adolescents with reference to their health status is depicted in the following tables.

a. Bread

Breads come in many forms, they can contain leavening or not. Bread can be grilled, baked, boiled, and fried. They can be loaf shaped, flat, square, round, long and shaped like a wreath. They all have some sort of grain or flour in their ingredients; Breads are consumed with every meal of the day, not to mention for snacks. Frequency of consumption of bread by the adolescents as per their weight criteria is depicted in Table. It is observed from the Table IV B, 94 per cent of obese adolescents, 84 per cent of normal weight adolescents, 82 per cent of overweight and 64 per cent of underweight adolescents consumed bread made out of refined flour on weekly basis in the form of toast and sandwiches. Only few adolescents were consuming bread daily.

b. Biscuits and Cookies

Cookies and biscuits are delicious, and they go down wonderfully with a cup of tea or coffee. The bellow Table shows that majority of the adolescents (100 percent of obese, 99 per cent of overweight, 97 per cent of normal and 94 per cent of underweight adolescents) consumed biscuits and cookies every day.

c. Cake

The bellow Table shows that nobody was noted without eating cakes whereas 98 per cent of overweight adolescents and 93 percent of obese adolescents consumed cakes weekly.

d. Fried items

Fried foods are high energy density foods and when consumed the individual tends to put on weight. Table elicits that 99 per cent of obese adolescents, 97 per cent of overweight

adolescents, 71 per cent of normal and 70 per cent of underweight adolescents consumed fried items such as bajji, bonda, vada, mixture, murukku etc., every day.

e. Chocolates and Sweets

Chocolates and sweets were the most favourite snack item consumed by the adolescents. Table shows that 100 per cent of obese, overweight and normal weight adolescents and 99 per cent of underweight adolescents consumed chocolates and sweets every day.

f. Chat items

India is often termed as the Street Food Paradise of the world, and Chat Items features on top of the list of Street Foods in India. However, lack of hygiene and health risks involved in availing chat items from streets, often keep people away from them. The bellow table shows that 98 per cent of obese adolescents consumed chat items every day, whereas only 12 per cent of underweight and 8 per cent of normal weight adolescents consumed chat items.

g. Pizza

Pizzas are often loaded with high fat items such as cheeses and meats. A high intake of such fat rich items can contribute to obesity and itself being a risk factor for cancer. The bellow table shows that 49 per cent of overweight adolescents and 43 per cent of obese adolescents consumed pizza every day when compared with normal (4 per cent) and underweight adolescents (2 per cent).

h. Burger

Burger is a very favourite item at this adolescent stage. The investigators as a part of their study wanted to assess the consumption of burger, since it is a high calorie snack item. The bellow Table shows that 41 per cent of obese adolescents and 31 per cent of overweight adolescents consumed burger everyday whereas among the normal and underweight the consumption pattern was very low (3 per cent and 2 per cent respectively)

TABLE IV B -SNACK CONSUMPTION PATTERN IN THE ADOLESCENTS

| Food items | Weight criteria | Frequency of consumption | | | | | | | |
|------------------------------|---------------------|--------------------------|-----|--------|----|--------|----|-----|----|
| | | Daily | | Weekly | | Rarely | | Nil | |
| | | NO | % | NO | % | NO | % | NO | % |
| Bread | Under weight(N=360) | 29 | 8 | 230 | 64 | -100 | 28 | 0 | 0 |
| | Normal(N=204) | 10 | 5 | 171 | 84 | 22 | 11 | 0 | 0 |
| | Over weight(N=268) | 8 | 3 | 220 | 82 | 40 | 15 | 0 | 0 |
| | Obese(N=368) | 3 | 1 | 346 | 94 | 18 | 5 | 0 | 0 |
| Biscuits and Cookies | Under weight(N=360) | 338 | 94 | 22 | 6 | 0 | 0 | 0 | 0 |
| | Normal(N=204) | 198 | 97 | 6 | 3 | 0 | 0 | 0 | 0 |
| | Over weight(N=268) | 265 | 99 | 2 | 1 | 0 | 0 | 0 | 0 |
| | ObeseN=368) | 368 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cake | Under weight(N=360) | 7 | 2 | 353 | 98 | 0 | 0 | 0 | 0 |
| | Normal(N=204) | 6 | 3 | 175 | 86 | 22 | 11 | 0 | 0 |
| | Over weight(N=268) | 5 | 2 | 263 | 98 | 0 | 0 | 0 | 0 |
| | ObeseN=368) | 26 | 7 | 342 | 93 | 0 | 0 | 0 | 0 |
| Fried items | Under weight(N=360) | 252 | 70 | 47 | 13 | 61 | 17 | 0 | 0 |
| | Normal(N=204) | 145 | 71 | 8 | 4 | 51 | 19 | 0 | 0 |
| | Over weight(N=268) | 260 | 97 | 8 | 3 | 0 | 0 | 0 | 0 |
| | Obese (N=368) | 364 | 99 | 4 | 1 | 0 | 0 | 0 | 0 |
| Chocolates and Sweets | Under weight(N=360) | 356 | 99 | 4 | 1 | 0 | 0 | 0 | 0 |
| | Normal(N=204) | 204 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Over weight(N=268) | 268 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| | ObeseN=368) | 368 | 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chat items | Under weight(N=360) | 43 | 12 | 209 | 58 | 7 | 2 | 101 | 28 |
| | Normal(N=204) | 16 | 8 | 69 | 34 | 14 | 7 | 105 | 51 |
| | Over weight(N=268) | 209 | 78 | 21 | 8 | 0 | 0 | 38 | 14 |
| | ObeseN=368) | 360 | 98 | 4 | 1 | 0 | 0 | 4 | 1 |
| Pizza | Under weight(N=360) | 7 | 2 | 54 | 15 | 90 | 25 | 217 | 58 |
| | Normal(N=204) | 8 | 4 | 61 | 30 | 94 | 46 | 41 | 20 |
| | Over weight(N=268) | 131 | 49 | 54 | 20 | 37 | 14 | 46 | 17 |
| | Obese (N=368) | 158 | 43 | 110 | 30 | 59 | 16 | 41 | 11 |
| Burger | Under weight(N=360) | 7 | 2 | 18 | 5 | 79 | 22 | 256 | 71 |
| | Normal(N=204) | 6 | 3 | 30 | 15 | 37 | 18 | 131 | 64 |
| | Over weight(N=268) | 83 | 31 | 24 | 9 | 51 | 19 | 110 | 41 |
| | ObeseN=368) | 151 | 41 | 44 | 12 | 81 | 22 | 92 | 25 |

PHASE V - IMPACT OF INTERVENTION ON KNOWLEDGE AND PRACTICES

1. Impact on Nutrition Test Score

A pre-test was conducted using the questionnaire containing ten questions to test the nutritional knowledge of the obese adolescents with special reference to functions and sources of nutrients and their dietary pattern. The adolescents were asked to state true or false for the given questions. Every correct answer was given one mark and the scores were summed up. These scores constituted the pre-intervention score. Evaluation of the efficacy of the education program was obtained by giving the same checklist used at the beginning of the study to determine post-intervention impact of the education program on the subsamples of both control and intervention group after the nine month periods of intervention. These scores constituted the post-intervention score.

2. Impact on Snacking Pattern

Details about the snack consumption by the adolescents of intervention group during, before and after intervention are given in Table V

| Snacks | Before Intervention (No) | After Intervention (No) |
|-----------------------|--------------------------|-------------------------|
| Bread | 20 | 24 |
| Biscuits and Cookies | 24 | 24 |
| Cake | 24 | 24 |
| Pizza | 24 | 7 |
| Burger | 24 | 5 |
| Chat items | 22 | 0 |
| Fried items | 24 | 15 |
| Chocolates and Sweets | 24 | 24 |

Table V reveals that the number of adolescents consuming bread was found to be slightly increasing after intervention. It was noted that 24 obese adolescents consumed bread in the form of toast and other forms, after intervention. It was encouraging to note that few adolescents consumed wheat bread.

Nutrition intervention did not bring out an impact on obese adolescents towards consumption of biscuits and cookies. It was observed that percentage of consumption was same after intervention. It was observed that all obese adolescents consumed cake whereas the percentage of consumption was reduced after intervention. Hence, only 20 numbers of adolescents consumed cake after intervention.

Before intervention period, all obese adolescents consumed pizza whereas only few obese adolescents consumed pizza after intervention.

Before intervention majority of obese adolescents consumed burger, whereas only few obese adolescents consumed burger after intervention.

After intervention the consumption of chocolates and sweets was considerably reduced. It was discouraging to note that there was no impact among obese adolescents.

Chat is a term describing savoury snacks, typically served at road-side tracks from stalls or carts in Pakistan and India. All the obese adolescents of intervention group had the habit of consuming chat items before intervention whereas after intervention their consumption rate was reduced (N=5).

It was observed that before intervention, there was a great craving for deep fat fried items whereas after nutrition intervention the number of adolescents consuming fried items was reduced.

COCLUSION:

The Project on the topic entitled “**Food consumption and Lifestyle Pattern of Obese Adolescents and the Impact of Nutrition Intervention in Karimnagar District**” gives a bird’s eye view on the prevalence of obesity, nutritional status and lifestyle habits of children in the selected schools of Karimnagar in Telangana state. The study showed that adolescent obesity varies with respect to family income, family history, dietary pattern, and lifestyle habits. The nutrient intake of the adolescents except for iron exceeded the Recommended Dietary Allowances. It was also noted that the food intake of girls is higher than boys. Combined strategies of nutrition education, dietary modifications and physical activities such as yoga and exercise were recommended to subsamples of intervention group. The impact of nutrition intervention showed that the adolescents were more aware of the positive aspects of health and nutrition. It was concluded that individually targeted obesity prevention intervention will produce beneficial effects on dietary pattern of the obese adolescents.

Suggestions:

- Food industries should aim at developing and promoting affordable and healthy ready-to-eat food products.
- Obese population should be educated on the consumption of healthy snacks. Fiber rich snacks should be formulated and supplemented to obese adolescents and its impact should be assessed.
- The health, educational and agricultural sectors should be coordinated to ensure effective government action for the prevention and management of overweight.
- Creating awareness on body weight maintenance through mass media like radio and television channels and conduct of awareness camps at schools, colleges, work places and PHC’s routinely.

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**SPECTRUM OF THYROID DISORDERS AND ITS RELATIONSHIP
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POPULATION OF KARIMNAGAR DISTRICT(TELANGANA) –
A COMMUNITY STUDY**

**STUDENT STUDY PROJECT SYNOPSIS SUBMITTED TO THE
COMMISSIONERATE OF COLLEGIATE EDUCATION**

Under the

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submitted by

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|--------------------|------------------|
| 1. B.Katyayani- | BZCA II YEAR E/M |
| 2. N.Amruthasneha- | BZCAII YEAR E/M |
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November-2019**

**SPECTRUM OF THYROID DISORDERS AND ITS
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BACKGROUND AND REVIEW OF LITERATURE

1. INTRODUCTION:

The prevalence and pattern of various diseases vary from country to country and also shows temporal changes over centuries. This difference is mainly because of the fact that the etiopathogenesis of most of the diseases are multi factorial i.e. they depend on race, genetic makeup, dietary habits, and lifestyle of individual as well as environmental factors which keep changing from place to place and time to time. Hence the assessment of incidence and prevalence of diseases in each country forms an important aspect of scientific research and is called epidemiology. These epidemiological data is very vital for each country as it reveals the disease pattern prevailing there, and this background information is very essential to design preventive and curative strategies and also to decide on fund allocation and priority fixation by policy makers in the health care sector in every nation.

For centuries many western countries have been maintaining excellent disease registries and still continue to generate extensive epidemiological data on the incidence and prevalence of communicable as well as non-communicable diseases prevailing in the population. Moreover many of the developed nations have been conducting periodic community health surveys of large representative samples of general population which have provided valuable data on the prevalence pattern and changing trends of many disease conditions. These data have also shed light into the causal associations and relationship between many extrinsic factors and diseases and thus provided considerable inputs into the etiological evaluation of many disease conditions.

Unlike developed countries, even after six decades of independence there is a gross lacuna of national epidemiological data from India especially on non-communicable diseases such as diabetes mellitus, obesity, hypertension, dyslipidemia and thyroid disorders. There were only few nationwide surveys and whatever data available was from regional studies and clinic based data. Hospital based data has many limitation as the clientele of each hospital vary widely and the data may not give the true picture of the disease burden in the community. But having a national registry of various diseases, which meticulously collects disease data from every nook and corner of the country, would have provided lot of information. But unfortunately except for few communicable diseases and cancer the national registries do not exist in our country. Hence to assess the spectrum and magnitude of any disease in this country, periodic nationwide epidemiological studies are needed. This is especially important in the case of diseases which lack florid symptoms such as thyroid disorders and diabetes mellitus which are shown to be the commonest endocrine diseases seen worldwide. Though during the last decade diabetes mellitus received more attention and have been in the focus of health planning after the initiation of national non communicable disease prevention programme, thyroid disorders other than iodine deficiency have not received much attention and remains poorly studied and researched in our country.

Thyroid gland disorders are considered as a common endocrine disease worldwide second only to diabetes mellitus. The spectrum thyroid disorders in any country at any time depend largely on iodine status of that population. Hence assessing the iodine status of the population is very important in interpreting the varying patterns of thyroid disorders in any part of the world.

In the pre salt iodization era iodine deficiency disorders such as endemic goiter and cretinism were the common thyroid problems encountered in many countries. But over the last two decades many countries have made rapid strides towards eliminating iodine deficiency disorders, especially after the implementation of the universal salt iodization by the UNICEF [44]. Once iodine deficiency, arguably the most common thyroid disorder worldwide, has been tackled, the focus would naturally shift to other thyroid disease like autoimmune thyroid disorders, subclinical hypothyroidism, hyperthyroidism and

thyroid cancers, which can affect the morbidity and quality of life of affected individuals. In addition to the direct impact of thyroid disorders in the health status of a community, undetected thyroid dysfunction can affect the quality of life, work performance and economic productivity of the individuals considerably. Importantly, studies have shown that in addition to overt hypo- and hyperthyroidism, subclinical thyroid dysfunction too has a detrimental effect on health. Subclinical hyperthyroidism also has been shown to increase all-cause mortality [15] as well as the risk of atrial fibrillation and osteoporosis [16]. Similarly subclinical hypothyroidism has been associated with dyslipidemia, increased risk of atherosclerosis and cardiovascular diseases [17-19], depression, ovulatory dysfunction, infertility [20, 21] and can adversely affect pregnancy [22, 23]. Subclinical thyroid disease is often asymptomatic, and may be identified only through screening.

Prior to the implementation of universal salt iodization, studies done in Telangana had shown that 11 out of 31 districts were iodine deficient and prevalence of goiter widely varied from place to place 8-23%. Since the implementation of universal salt iodization in 1986, results of many recent studies done in various parts of India [14,24] have shown that iodine status of the population has become adequate, though pockets of iodine deficiency still exist [25]. Hence India is said to be in the transition phase from iodine deficiency to iodine sufficiency. But the spectrum of thyroid dysfunction and thyroid autoimmune status of adult population in the post iodization phase remains largely unknown as most of the nationwide surveys were conducted among school children [13, 26]. However based on data from school children, it has been hypothesized that about 42 million Indian adults suffer from thyroid problems which is about 6% of the 72 million adults above 18years [12].

1.1 THE THYROID GLAND

Thyroid gland is a major endocrine gland of the body situated in the front of neck. It is a butterfly shaped gland with 2 lobes connected by an isthmus, weighing 15-20gms (Fig.1.1). Basic functional unit of the thyroid gland is the follicle, a ball shaped structure composed of single layer of follicular epithelial cells surrounding a lumen filled with colloid material containing a protein, thyroglobulin, which stores the synthesized hormones till the time of release.

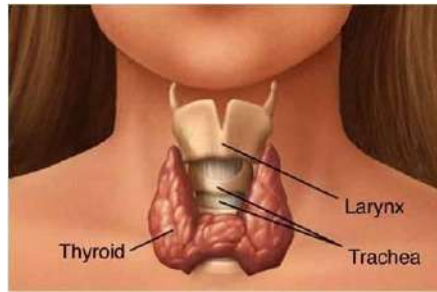


Fig. 1.1 Anatomy of thyroid gland

1.1.1 THYROID HORMONES

Thyroid gland is a major endocrine gland of the body, which secretes two hormones, Tetra iodothyronine (T4) and tri iodothyronine (T3) under the influence of trophic regulatory hormone, Thyroid Stimulating Hormone (TSH). Both T4 and T3 are synthesized in the apical border of follicular epithelial cell by iodination of tyrosine residue of thyroglobulin protein by enzyme thyroperoxidase (TPO) (Fig. 1.2). The synthesized hormones are stored in the colloid within the follicle and are released from the follicular cells as per the body demands.

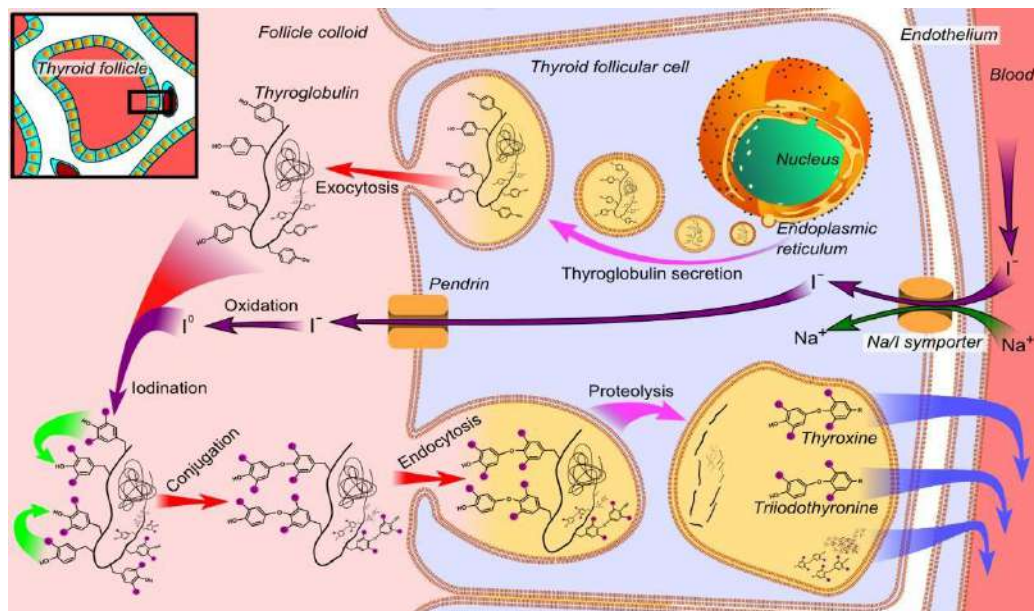


Fig.1.2 Synthesis of thyroid hormones within the follicular cells of thyroid gland

Once released into blood T4 and T3 bind to Thyroxine Binding Globulin (TBG), thyroxine binding prealbumin and albumin. Only about 0.02% of the total T4 is non-protein bound and this is called Free T4 whereas 0.2% of T3 is non-protein bound and is called FreeT3. Plasma FreeT4 and FreeT3 determine the tissue availability of T4 and T3 and hence considered as more reliable parameters of thyroid status than total T4 and T3 which can be influenced by the variation in concentration of transport proteins.

TSH is secreted by anterior pituitary and is regulated by the Thyrotropin Releasing Hormone (TRH) secreted from hypothalamus of the brain. The blood level of T4 & T3 influences anterior pituitary and hypothalamus in a negative feedback pattern. When the thyroid hormone level decreases it results in an increase in the TSH level to stimulate thyroid gland to synthesize and secrete more thyroid hormones whereas, if thyroid hormone levels are high it suppresses the secretion of TSH in order to reduce the synthesis and release of thyroid hormone from the gland (Fig.1.3). Thyroid hormone is critical for growth and development of all tissues of the body especially neuronal tissue but is also essential for controlling the basal metabolic rate. It also plays an important role in thermogenesis, fuel and vitamin metabolism in the body [1].

1.1.2. THYROID DISORDERS

Diseases of thyroid gland are the second most common endocrine problem seen among human beings all over the world, first being diabetes mellitus. Thyroid diseases can be broadly classified as functional or structural or a combination of both. Functional disorders produce alterations in hormonal levels. It can be either a deficiency (hypothyroidism) or excess (hyperthyroidism) of thyroid hormones, both having profound influence on health and well-being of the affected person.

Structural disorders usually involve enlargement of the thyroid (thyromegaly or goiter) (Fig. 1.4). This can be a diffuse or nodular goiter, or can be benign or even

malignant proliferation of tissues. Goiter can present with normal or abnormal function of the gland.

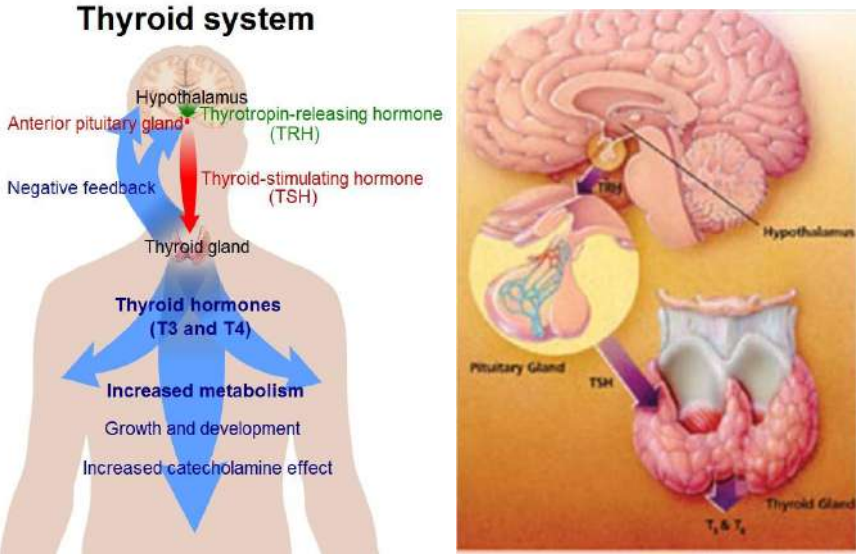


Fig. 1.3 Thyroid hormone secretion is under feedback control from pituitary gland.



Fig. 1.4 Thyromegaly or Goiter

1.1.3 HYPOTHYROIDISM

Deficiency of thyroid hormones produces clinical condition called hypothyroidism. Depending on the time of occurrence of thyroid hormone deficiency, clinical manifestations of this condition vary considerably. If hypothyroidism develops in the perinatal period i.e.; in the developing fetus or infancy, it produces profound effects in the neuronal and somatic development of children and can result in major problems like growth retardation, mental retardation, and neurological deficits etc. The children affected have short stature and develop typical facial and body features as well as mental retardation i.e.: cretinism (Fig. 1.5).



Fig. 1.5: A child with cretinism

In adults hypothyroidism produces subtle changes such as psychomotor slowing, depression, loss of memory, metabolic abnormalities, diffuse aches and pains, cold intolerance, hoarseness of voice, puffiness of face, edema, weight gain, high cholesterol, infertility, constipation etc (Fig.1.6). In severe cases it can lead on to heart problems such as cardiomegaly, ischemic heart disease, pericardial effusion etc. When thyroid hormone deficiency becomes very severe the subject may drift into drowsiness and develop myxoedema coma characterized by hypothermia, hyponatremia, bradycardia etc, which can be fatal.



Fig. 1.6: Facial features of hypothyroidism

1.1.4 HYPERTHYROIDISM

When thyroid hormones are produced in excess it can produce florid symptoms such as weight loss, palpitation, tremor, heat intolerance, restlessness, psychomotor excitation, increased catabolism, metabolic abnormalities, osteoporosis etc. It also produces fast heart rate, arrhythmias and even cardiac failure. Some forms of hyperthyroidism (Grave's disease of autoimmune etiology) causes associated thyroid eye disease characterized by bulging of the eyes (proptosis and lid retraction) (Fig. 1.7).



Fig. 1.7: Typical facial features of hyperthyroidism

In severe cases of hyperthyroidism patient can rarely develop a worsening of thyrotoxicosis with multi organ dysfunction resulting in a very serious condition called ‘Thyroid Storm’ characterized by fever, cardiac arrhythmias, heart failure, jaundice, delirium etc. This condition has a very high chance of mortality and needs urgent expert treatment.

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1.1.5 SUBCLINICAL THYROID DYSFUNCTION

After the wide spread availability of biochemical assessment of thyroid by thyroid function tests, other than the overt thyroid dysfunction hypo and hyperthyroidism, there are subclinical thyroid disease conditions, where blood levels of T4 and T3 are within normal limits but TSH is either high (subclinical hypothyroidism) or low (subclinical hyperthyroidism). Both of these conditions are basically biochemical abnormality detected only on testing usually remain asymptomatic, but appears to have long term health implications [2] such as cardiovascular disease and osteoporosis.

1.2 ETIOLOGY OF THYROID DISORDERS

Multiple etiological factors are suggested for thyroid disorders [3]. These include nutritional factors such as deficiency or excess of iodine, autoimmunity marked by the presence of antibodies to thyroperoxidase and thyroglobulin antigens in the gland and genetic factors leading to defects of enzymes involved in hormone synthesis, or increasing susceptibility to autoimmunity. Moreover there are many other environmental chemicals which can affect the thyroid gland. Some of them such as thiocyanate cause goiter [4] whereas some others cause functional as well as structural alterations e.g. persistent organic pollutants, bisphenol, perchlorate etc [5]. Unlike other endocrine gland disorders, the pattern of thyroid disorders in any country is largely decided by the presence or absence of various factors in the community and environment. Hence it is

very important to assess the epidemiology of thyroid disorders periodically in order to assess the prevalence of these factors and its impact on thyroid diseases in the population.

1.2.1 THYROID AUTOIMMUNITY

Autoimmunity is the process of abnormal immune response occurring in the body against auto antigens resulting in damage to specific organs or organ systems leading to variety of diseases. It is a common cause of endocrine diseases and thyroid autoimmunity is most frequent [6]. Thyroid autoimmunity involves both T and B lymphocyte mediated immune response and it produces diffuse inflammation and T cell infiltration of the thyroid gland either focally or diffusely (Fig.1.8). This is called autoimmune thyroiditis and it can manifest in a wide range of disease states such as focal thyroiditis without goiter, Hashimoto's goitrous thyroiditis with or without hypothyroidism, atrophic nongoitrous thyroiditis, silent and postpartum thyroiditis (with initial transient thyrotoxicosis followed by later hypothyroidism) to Graves disease with hyperthyroidism and associated ophthalmopathy [6].

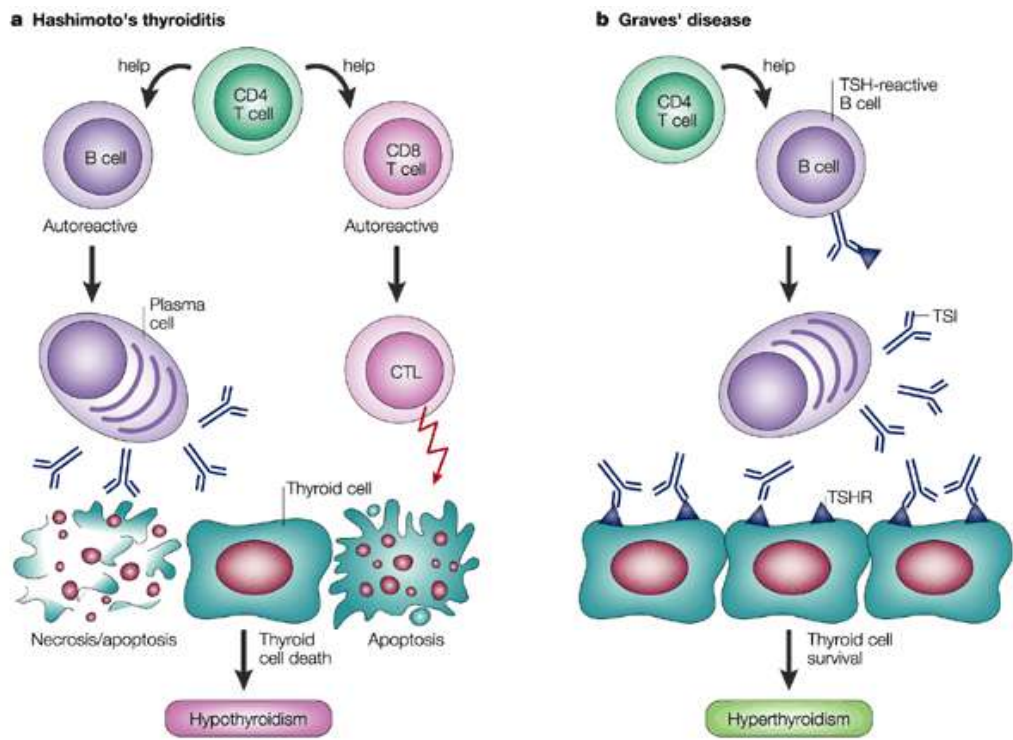


Fig. 1.8 Autoimmune mechanism of thyroid disease

Autoimmune thyroid disease is hallmarked by the presence of autoantibodies against thyroperoxidase enzyme (TPO) (located at the apical border of thyroid follicular cell which is responsible for iodination and coupling to form thyroid hormone) and Thyroglobulin (TG) (which is secreted by thyroid cell as a storage form of thyroid hormone in the colloid) within the thyroid gland and in the peripheral circulation. Prevalence of these auto antibodies had been reported as 7-20% from various countries. These antibodies are seen in 95-100% of autoimmune hypothyroidism and 80-90% of Graves's hyperthyroidism. Positive antibodies are also seen in 10-15% of multinodular goiter and 30-40% of thyroid cancers. When these antibodies are present without thyroid dysfunction, the positive predictive value of future thyroid dysfunction is 40-60% [7, 8]. The exact etiology of this autoimmune disease is not clear though it is widely believed that genetic factors can predispose and environmental factors can trigger autoimmunity.

1.2.2 IODINE AND THYROID GLAND

Thyroid gland is quite different from other endocrine glands in the fact that its function depends heavily on an external element procured through diet. The trace element iodine is the main raw material needed for thyroid hormone synthesis. Hence iodine is considered as an essential micronutrient required for adequate mental and physical functioning of the human body [2]. Daily iodine requirement for human beings is approximately 150 microgram for adults (aged above 12 years) but the allowance is more for pregnant ladies and lactating mothers [3, 4] (Table 1.1).

1.2.3. SOURCES OF IODINE

Iodine is obtained solely from dietary sources. Iodine (as iodide) is widely but unevenly distributed in the earth's environment with maximum concentration found in the seawater (about 50 microgram/L). Iodide ions in seawater oxidize to form elemental iodine, which is volatile and evaporates into the atmosphere and returns to the soil by rain, completing the cycle.

Table 1.1 WHO Recommendation of daily Iodine intake

| Age group | Daily recommended Iodine intake |
|--|--|
| Children 0-5years | 90mcg |
| Children 6-12years | 120mcg |
| Children >12years and adults | 150mcg |
| Pregnant females | 250mcg |
| Lactation | 250mcg |

However, the cycle of iodine in many regions is slow and incomplete. The frequent floods and heavy rains wash away the iodine, making soils and groundwater deficient in iodine. Crops grown in these soil will be low in iodine concentration, and man and animals consuming food grown in these soil also become deficient in iodine [5]. Iodine concentration in plants grown in iodine deficient soils might be as low as 10 microgram/kg of dry weight, compared with about 1 mg/kg in plants from iodine-sufficient soil.

Seafood is usually a good source but iodine content of the freshwater fish depends on the iodine content of the water they live in. In all animals and human, the mammary gland concentrates iodine and during lactation lot of iodine is secreted into breast milk to provide for the offspring. Hence dairy products are usually a good source, but only if those cattle are iodine sufficient. Similarly the meat or other products from animals fed on iodine-deficient plants also become poor sources of iodine in the diet. Iodine-deficient soils are common in inland regions, mountainous areas, and places with frequent flooding, but can even occur in coastal regions [4,6].

1.2.4. IODINE ABSORPTION AND EXCRETION

Almost all of the iodine absorbed from the gut is trapped by the thyroid gland under the influence of TSH. Iodate, is reduced in the gut and absorbed as iodide[14]. Organically bound iodine is typically digested and the released iodide is absorbed. Iodide is rapidly and nearly wholly absorbed (>90%) in the stomach and duodenum. Thyroid clearance of circulating iodine varies with iodine intake: in situations with adequate iodine supply, 10% or less of absorbed iodine is taken up by the thyroid gland. In chronic iodine deficiency, this percentage can exceed 80% [5].

Plasma half-life of iodine is 10hours but this can be reduced in iodine deficiency. The body of a healthy adult contains 15–20 mg of iodine, of which 70–80% is in the thyroid [13]. In chronic iodine deficiency, the iodine content of the thyroid might fall to less than 20 micrograms. In iodine-sufficient areas, the adult thyroid traps about 60 microgram of iodine per day to balance losses and maintain synthesis of thyroid hormone. The Sodium/iodide symporter transfers iodide into the thyroid at a concentration gradient 20–50 times that of plasma. Iodine consists of 65% and 59% of the weights of thyroxine (T4) and tri-iodothyronine (T3), respectively. Turnover is slow: the half-life of T4 is about 5 -7days and for T3, 1.5–3 days. The released iodine enters the plasma iodine pool and can be taken up again by the thyroid or excreted by the kidney. More than 90% of ingested iodine is ultimately excreted in the urine [8].

1.2.5 IODINE DEFICIENCY DISORDERS

The effect that iodine deficiency has upon human life in terms of health costs, quality of life and economic productivity is immeasurable. Deficiency of iodine generally produces hypo function of thyroid and thyromegaly (goiter) [6] and such diseases are categorized as Iodine Deficiency Disorders (IDD). Iodine deficiency in the perinatal period is the single most important preventable cause of brain damage (especially in children) worldwide [9]. People living in areas affected by severe iodine deficiency may have an intelligence quotient (IQ) of up to 13.5 points below that of those from comparable communities in areas where there is no iodine deficiency. This is because maternal iodine deficiency leading to maternal and fetal hypothyroxinaemia occurring during gestation and post natal period adversely affect the neuronal migration and myelination and result in irreversible brain damage. This produces cretinism which can be of either neurological or myxedematous variety (Fig. 1.8) [10].

Neurological cretinism shows three characteristic features: severe mental deficiency together with squint, deaf mutism, and motor spasticity of the arms and legs. The thyroid gland is present, and frequency of goiter and thyroid dysfunction is similar to that noted in the general population. The characteristic features of myxoedematous cretinism are severe mental retardation, short stature, incomplete maturation of the face with wide-set eyes, mild strabismus, saddle-nose deformity, mandibular atrophy,

thickened, dry skin and hair along with profound primary hypothyroidism. The thyroid typically shows atrophic fibrosis (Fig.1.9).

Whether mild to moderate maternal iodine deficiency causes more subtle impairment of cognitive or neurological function in offspring is still a matter of debate. Though correcting iodine deficiency of mother had been shown to reduce thyroid size and TSH levels in mothers and newborns, the impact on neurological function of offspring is poorly studied. The maternal subclinical hypothyroidism has been shown to reduce the IQ of the offspring by about 7 points compared to mothers with normal thyroid function. This mental deficiency has an immediate effect on child learning capacity, women's health, the quality of life in communities, and economic productivity.

1.3 HYPOTHESIS

Iodine deficiency and autoimmunity could be the causative factors for thyroid disorders.

2. OBJECTIVES

The purpose of the present study was to assess the prevalence of various thyroid disorders and to evaluate iodine status and thyroid autoimmunity in adult population residing in Karimnagar district, a Telangana state of south India.

3. MATERIALS AND METHODS

3.1 SAMPLE SELECTION AND STUDY DESIGN

Amrita Diabetes and Endocrine Population Survey (ADEPS) was conducted in Telangana in four randomly selected areas of the Karimnagar District in order to obtain a representative sample (Fig. 2.1). The total population in the selected area was estimated at 200,000. As this study was designed to look at the prevalence of not only diabetes but also other rare endocrine disorders such as thyroid disorders and calcium disorders the sample size was calculated accordingly. The prevalence of other endocrine disorders in the Indian adult population is not known but assuming similar figures as published, a prevalence of 3-4% would require a sample size of 3000. Assuming an average of 3 adults per household, 350 houses from each area were selected totaling 1050

households and approximately 3000 adults. Institutional ethics committee had approved this study.

In the second stage, Wards were considered the primary sampling unit and these, households were selected as per the sampling scheme suggested by W.H.O with modifications on the number of clusters to get the required sample size i.e.: 50 clusters of 7 houses each. Field workers visited the three survey areas and obtained survey data from all adult residents above the age of 18 years from selected house clusters. A resident was defined as a person who had resided in the surveyed house for at least fifteen days in the previous three months. The fieldworkers conducted a 15-minute survey collecting details of demographic and socio-economic status (SES), medical history, lifestyle details and dietary pattern. Economic status was assessed indirectly using a scoring system looking at the type of house, household possessions etc and classified as poor, middle or high-income group. Physical activity was assessed by questionnaire and graded into four categories of sedentary, mildly active, moderately active and highly active.

The final study sample included 931 houses and 3069 adults. The surveyed population was invited to participate in the second phase of the study, which was conducted in their own locality. About 32% (n= 986) underwent the second phase of the study, which included physical evaluation and biochemical investigations organized in their locality (Fig.3.2). Though, ideally a randomly selected sample would have been preferable, due to practical problems this could not be done. Informed consent was obtained from all those who participated in the second phase of the study.



Fig. 3.1 Study participants at the registration desk

After signing informed consent document, all phase 2 participants underwent anthropometrical measurements such as height, weight, physical examination and biochemical evaluation for thyroid function, thyroid autoimmunity status and iodine status. Medical history verification, physical examinations including blood pressure (BP) and goiter evaluation were done by physician to minimize observer variation (Fig 3.3). Goiter was graded as per the definition provided by the WHO/UNICEF / ICUDD (1992).

Grade - 0 No
goiter

Grade -1 A mass in the neck that is consistent with enlarged thyroid that is palpable but not visible. When neck is in normal position, it moves upward in the neck when the subject swallows.

Grade - 2 Swelling in the neck that is visible when neck is in normal position that is consistent with an enlarged thyroid when palpated.



Fig. 3.2 Doctor verifying history and examining study subjects

Fasting venous blood sample was collected from all 986 subjects and transported to labs on ice (Fig 2.4). Serum was separated and stored in -70°C till analysis. Samples of urine were collected from 969 subjects in wide mouthed iodine free screw capped plastic container. Urine was refrigerated till analysis.



Fig. 3.3 Study participant undergoing blood draw.

Serum Thyroid Stimulating Hormone (TSH), free Thyroxine (FT4) and free T3 (FT3), anti Thyroid peroxidase antibody (Anti TPO antibody),

anti Thyroglobulin antibody (Anti TG antibody) were measured by Electro Chemiluminescence Immuno-Assay (ECLIA) using Elecsys 2010 Roche.

Urine iodine was estimated by simple microplate method using ammonium persulphite digestion and Sandell Kolthoff's reaction at Prathima Lab, Karimnagar[43].

3.2.DEFINITIONS

Hypothyroidism – Subjects who were previously diagnosed to have hypothyroidism and were taking levothyroxine and those with serum FT4 < 0.92ng/dl and TSH >4.2uIu/ml were categorized as hypothyroid.

Subclinical hypothyroidism - those with normal serum FT4 and TSH > 4.2uIu/ml were classified as having subclinical hypothyroidism

Hyperthyroidism - Subjects who had been diagnosed to have hyperthyroidism and were on treatment for this condition and those with serum FT4 >1.71ng/dl and TSH <0.27uIu/ml were considered as having primary hyperthyroidism.

Subclinical Hyperthyroidism - Subjects with normal serum FT4 and TSH <0.27uIu/ml were considered as having subclinical hyperthyroidism.

Abnormal TFT – Those without any history of thyroid disease but having a thyroid function test which is not classifiable into any of the above four categories were classified into this group.

Anti TPO antibody levels more than 50Iu/ml and Anti TG antibody levels more than 325Iu/ml were considered positive for thyroid autoimmunity. Data was analyzed using SPSS version-11.0

Table 3.1 Iodine status – Categories of urine iodine levels of the study subjects

| Median Urinary Iodine Concentration (mcg/L) | Corresponding Approximate Iodine Intake (mcg/day) | Iodine Nutrition |
|---|---|---------------------|
| <20 | <30 | Severe deficiency |
| 20-49 | 30-74 | Moderate deficiency |
| 50-99 | 75-149 | Mild deficiency |
| 100-199 | 150-299 | Optimal |
| 200-299 | 300-449 | More than adequate |
| >299 | >449 | Possible excess |

4. RESULTS

The initial survey of 3069 subjects showed that 2.2% (67) of the population had already-diagnosed thyroid disorders and majority of these were females (M-7, F-60). Twenty four subjects had history of hypothyroidism whereas 12 gave history of hyperthyroidism. Among the population 98.4% were using iodized salt. Among the surveyed population, 986 subjects (M -389 F - 587) participated in the second phase of the study. Mean age was 44.8 ± 14.9 years. Age and gender distribution of the study subjects are shown Fig. 4.1.

Majority of the study subjects (52.9%) belonged to middle income category whereas 30 % were from poor income category and 16.1% were from high income category. Three fourth of the subjects had less than high school education (75%) where as 25% had above high school education. According to the occupation and leisure time activities, 56% were engaged in mild physical activities, 40.6% were doing moderate physical activities whereas only 3.4% doing vigorous physical activities as part of their occupation. Only 5.35 of these subjects were strict vegetarians and 93.5% were nonvegetarians.

Among the female population 42.2% were in the postmenopausal period. Among the males 41.2% were teetotalers where as 12.9% were exalcohol users.

38.2% were social drinkers where as 7.2% admitted to regular alcohol drinking. Among males 34% were current smokers where as 24.5% were exsmokers where as 41.3% of subjects never smoked. None of the females had smoking or alcohol using habits.

In this population 24 reported that they had hypothyroidism, 7 had hyperthyroidism whereas 8 subjects were not sure of type of their thyroid problem. Eight subjects had undergone thyroid surgery and a case of diagnosed papillary carcinoma undergoing treatment was also noted. Family history of thyroid disorder was present in 41 (4.6%) subjects (M 3.7% F 5.2%).

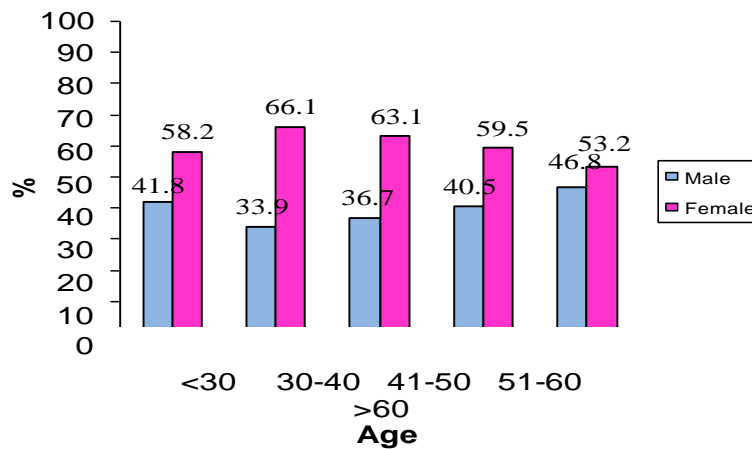


Fig. 4.1: Age and gender distribution of the study subjects (986)

4.1 IODINE STATUS

Urine iodine estimations were done in 954 subjects. Results showed that median urine iodine excretion (UIE) was 211.4mcg/l (mean 220.3 ± 99.5 mcg/L) suggesting iodine sufficiency. Iodine deficiency, UIE < 100 mcg/l was seen only in 15.1% of the subjects while 30.1% had UIE rate of > 300 mcg/l. There was no value above 500 mcg/l. Iodine deficiency was similar in all age groups but iodine excess was lower in older subjects (Fig. 4.2)

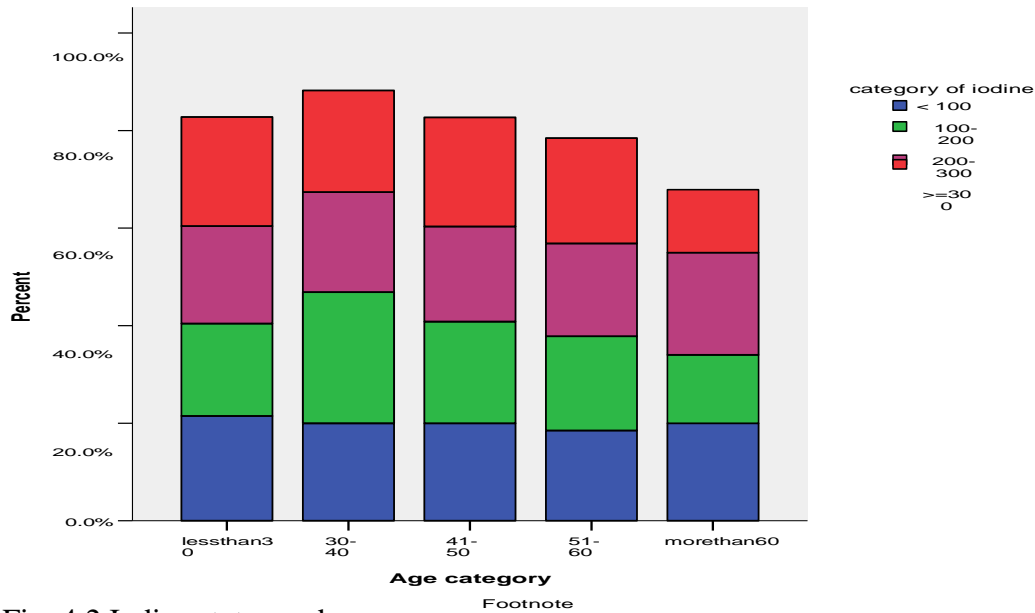


Fig. 4.2 Iodine status and age

4.2 GOITER

The total prevalence of goiter was 12.2% (Grade 1- 8.7%, Grade 2 - 3.5%) and was significantly higher ($p < 0.001$) in females than males (16.1% vs. 6.0%). Prevalence of goiter decreased significantly ($p=0.02$) with increasing age among females (Table 2.2). Though males >60 years had more goiter than young subjects, this difference was not statistically significant ($p = 0.23$).

The median UIE for goitrous subjects was within normal range, but was significantly ($p= 0.006$) lower than nongoitrous subjects (180mcg/l vs. 218mcg/l) suggesting possible role of iodine in the etiology of goiter. Goiter was more common among iodine deficient subjects (17.1%) compared to those with normal or high UIE (11.5%). Among the 117 subjects with goiter only 21.4% had iodine deficiency.

Anti TPO antibody was positive in 33% and Anti TG antibody was positive in 25% of the goitrous population. Neither iodine deficiency nor autoimmunity could be detected in 42% of goitrous people. Regarding thyroid function status of goitrous subjects, 18.4% had hypothyroidism, 13.2% had subclinical hypothyroidism and 4.3% had hyperthyroidism and the rest (64.1%) were euthyroid.

Table 4.1 The prevalence of different grades of goiter among both genders

| Age in years | Goiter % | | | | |
|--------------|----------|--------|-------|---------|---------|
| | Male | Female | Total | Grade 1 | Grade 2 |
| < 40 | 6.5 | 20.1 | 15.1 | 10.1 | 5 |
| 40 – 60 | 3.8 | 15.4 | 10.9 | 7.9 | 2.7 |
| > 60 | 9.1 | 8.7 | 8.9 | 6.8 | 2.1 |

4.3 THYROID FUNCTION STATUS

Subjects taking amiodarone, lithium and subjects with pregnancy were excluded from this analysis. Biochemical evaluation of thyroid status among 971 subjects showed 19.6% had thyroid function abnormalities; subclinical hypothyroidism being the most common disorder (Table 4.2). Thyroid dysfunction was found significantly ($p < 0.001$) more frequently among females than males. Thirty-four subjects had TFT, which were not classifiable without repeat testing.

2.4.3.1 OVERT HYPOTHYROIDISM

There were 24 self-reported hypothyroid patients in the study population, among these 17 were on levothyroxine replacement, while 7 were not on any treatment. 58.2% of those on treatment had TSH value $> 4.2 \mu\text{IU/ml}$ suggesting inadequate replacement therapy.

After biochemical evaluation, 14 new cases of hypothyroidism were diagnosed, indicating prevalence of hypothyroidism as 3.9%. Hypothyroidism was significantly higher ($p < 0.001$) among females (6%) than males (0.8%). Among subjects with hypothyroidism only 13.6% had positive family history of thyroid problems compared to 4% in subjects with normal thyroid function. Fifty six percent of the hypothyroid subjects had goiter (34.2% Grade 1 and 21.1% Grade 2). Autoimmunity was the most common cause of hypothyroidism since 68.4% (26/38)

of hypothyroid patient were anti TPO antibody positive whereas only 30.8% were Anti TG antibody positive. Median UIE of hypothyroid subjects was 203mcg/l.

Table 4.2. Pattern of Thyroid Dysfunction among the study population (971)

| Thyroid Status | Males (383) | Females (588) | Total (971) |
|----------------------|-------------|---------------|-------------|
| Normal TFT | 332 (86.7%) | 449 (76.4%) | 781(80.4%) |
| Hypothyroidism | 3 (0.9%) | 35(5.9%) | 38 (3.9%) |
| Hyperthyroidism | 5 (1.3%) | 8(1.4%) | 13 (1.3%) |
| Sub. hypothyroidism | 24 (6%) | 67(11.5%) | 91 (9.4%) |
| Sub. hyperthyroidism | 2(0.8%) | 12(1.9%) | 14 (1.4%) |
| Abnormal TFT* | 17 (4.7%) | 17(2.1%) | 34(3.4%) |
| Total abnormalities | 51(13.3) | 139(23.6) | 190(19.6) |

*(*Abnormal TFT means abnormal values, which cannot be classified into any 5 categories)*

4.3.2 SUBCLINICAL HYPOTHYROIDISM

Subclinical hypothyroidism with normal free T4 and high TSH was the most common thyroid function abnormality present in the population (9.4%). This was significantly more common in females (11.4 %) than males (6.2%) (p<0.001). Prevalence of this condition increased steadily with age (Fig.3.7), especially in females. Sixteen percent of subclinical hypothyroid subjects had goiter (Grade 2 1.1% and the rest being Grade 1). Fifty three percent of subclinical hypothyroid subjects had positive anti TPO antibody, while only 30.8% had positive anti TG antibody. Median UIE of hypothyroid subjects was 203mcg/l.

4.3.3 HYPERTHYROIDISM AND SUBCLINICAL HYPERTHYROIDISM

Overt hyperthyroidism was present in 1.3% of the population; whereas 1.4% had subclinical hyperthyroidism. Among hyperthyroid patients 39% had goiter (Grade 1 15.4% and Grade 2 23.4%), 35.7% had positive anti TPO antibodies, while 30.8% had anti TG antibodies. There were no cases of T3 thyrotoxicosis in this cohort. Median UIE of hyperthyroid subjects was significantly ($p=0.05$) higher (336.6mcg/l), while that of subclinical hyperthyroidism was significantly lower(93.5mcg/l) than the rest of the population.

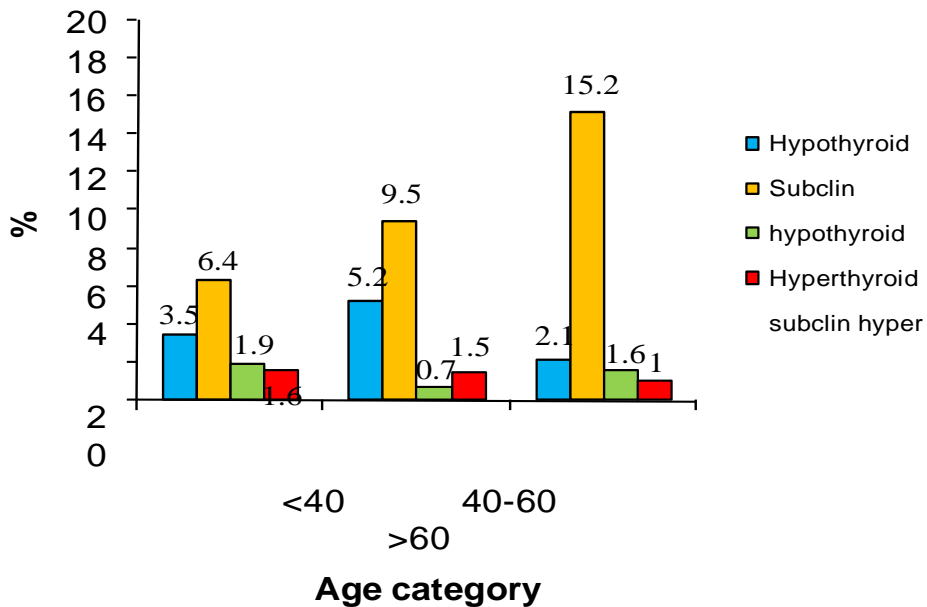


Fig. 4.3. Relationship between thyroid dysfunction and age

Unclassified thyroid functional abnormalities were those, which could not be classified into any of these 4 categories. There were 3 subjects whose results were suggestive of central hypothyroidism (low FT4 and low TSH levels) and one suggestive of central hyperthyroidism or thyroid hormone resistance (high FT4 and high TSH). There were 10 subjects who had low FT4 and, 20 who had high FT4 with normal TSH value.

5. DISCUSSION

The present study has described the pattern of thyroid disorders at community level in an iodine sufficient adult population of south India for the first time and the results are very different from the pattern reported in many other countries.

About three decades ago Wickham survey [27] conducted between 1972 and 1974, among the adult population of UK (n=2779) demonstrated prevalence of goiter (Grade1=8.6%, grade 2=6.9%), hyperthyroidism (M=2.3% F=2.7%), hypothyroidism (M=1%, F=1.4%), first time for a Caucasian population. After that the nationwide survey conducted among US population (9>12years) showed that 4.6% of them had hyperthyroidism whereas 1.3% had hypothyroidism but prevalence varied between different races. The results also indicated that a large proportion of the US population has undetected thyroid dysfunction and that screening is highly essential [28]. A study from an iodine sufficient area of Denmark had shown that prevalence of hypothyroidism and subclinical hypothyroidism was 0.4% and 4.0% respectively, whereas prevalence of hyperthyroidism was 1.3% [29]. But in an iodine sufficient Japanese population, prevalence of hypothyroidism and hyperthyroidism were much lower (1.39% and 0.61% respectively) [30].

In India, previous nationwide surveys among school children in the post iodization phase [13] has shown much lower incidence of thyroid disorders even among goitrous subjects compared to our study. The total prevalence of hypothyroidism was only 0.79% whereas subclinical hypothyroidism was 4.9%. But prevalence of hyperthyroidism (1.0%) was similar to the present study. It also showed a persistently high prevalence (23%) of goiter and comparatively higher UIE for goitrous subjects suggesting the role of other factors such as autoimmunity and goitrogens as causative agents in children. But the present study among an adult population shows a lower goiter rate but higher prevalence of thyroid dysfunction

than children. This could be the influence of aging or other environmental chemicals on thyroid function and pathology. A recent large study in school children in Delhi showed a goiter prevalence of 9.2 % [26]. In a small study conducted in iodine deficient adult population of Sikkim state had shown that functional decompensation occurs in majority of goitrous subjects [31]. But in the present study only 36% of the goitrous subjects had thyroid dysfunction. Another community survey of iodine deficient adult population in Gujarat, a state the western part of India in had assessed the TSH status of the study subjects and found that 7% of them had high TSH value [32]. Such a study on iodine sufficient adult population from India is lacking and hence a direct comparison with our results was not possible. However this study showed much higher prevalence of thyroid disorders among adults than previously hypothesized based on children data [12].

This study showed that though median UIE was lower in goitrous subjects it was higher than the suggested normal range. This higher prevalence of goiter despite sufficient iodine levels points to the role of other unidentified goitrogen exposure in the community which may be difficult to identify.

The urine iodine excretion rates of the study population were adequate. Results of the previous studies of iodine status conducted among school children in Karimnagar district [33] as well as entire Telangana state [34] had also shown that median UIE was adequate. 97.4% of the study population was using iodized salt, and were mainly non-vegetarian coastal population with high fish intake in their regular diet. These factors could have contributed to the iodine levels seen in this study. Though 30% subjects had higher than adequate (>300 mcg/l) UIE, there was no value above 500mcg/l which would have suggested over iodization. Neither high nor low iodine levels were found be correlating with thyroid dysfunction when compared with euthyroid subjects.

But UIE was significantly higher for hyperthyroid subjects suggesting the possible role of more than adequate iodine levels in the etiology of this condition. On the contrary UIE was significantly lower in subjects with subclinical hyperthyroidism. This is similar to the results seen in studies

conducted in areas recently attained iodine sufficiency suggesting a possible protective role of high iodine level against subclinical hyperthyroidism [11, 35].

Among thyroid dysfunction subclinical hypothyroidism being the most common condition, its prevalence was significantly higher among females and steadily increased with increasing age among females. This is much higher than the prevalence reported by similar studies in other countries [28-30, 36]. In fact these results may represent the pattern of thyroid dysfunction seen during the transition of one area from iodine deficiency to sufficiency. Studies have clearly shown that prevalence of subclinical hypothyroidism and autoimmune thyroid disorders increases with increasing iodine status of the population [30, 37, 38] though some other studies have not shown this trend [39]. It is also known that a high iodine intake is associated with lower goiter prevalence and higher prevalence of hypothyroidism whereas, as lower iodine intake is associated with higher prevalence of hyperthyroidism [40]. But there is no iodization data available for present study population to make a more meaningful comparison of these findings.

Unclassified thyroid dysfunction was seen in 30 subjects in this cohort. These may represent the subjects who are having thyroiditis or those on the recovery phase of thyroiditis or sick euthyroidism etc. These abnormalities could also be due to the effect of drugs such as salicylates or beta-blockers etc or due to the rare presence of thyroid hormone antibodies [41, 42]. Even drugs like metformin taken by many diabetic patients can also cause low TSH. These subjects need further follow up to have a correct diagnosis.

The results of this study have shown that female gender and presence of goiter are more predictive of thyroid dysfunction and this is similar to the results of other studies. Among subjects with thyroid dysfunction, autoimmunity was the commonest etiology of these disorders. Family history of thyroid disease was not seen as a significant factor in this study whereas about 50% of the thyroid autoimmune cases had positive family history in Caucasian population. Iodine

status, economic status, educational level and age were not significantly associated with thyroid dysfunction.

This study has some limitations. This was done in north urban area and may not represent the data from remaining land area though previous statewide surveys of iodine status have not shown much difference between these areas. The sample size is rather small compared to many other studies abroad and the study population had more females than males. Those who had abnormal TFT, which do not fit into any groups, could not get their TFT repeated, as we have not followed up these subjects. We have not assessed the nodularity of the goiter and FNAC of goiters were not done. We did not assess the urinary excretion of goitrogens among this population, which could have given lot of valuable information.

6. CONCLUSION

To summarize, this study clearly showed that undetected thyroid disorders are very high in this iodine sufficient community necessitating development of appropriate screening strategies to detect and treat these conditions considering the magnitude of health problems it can cause to the population.

The high prevalence of subclinical hypothyroidism should be viewed with due importance in this population considering its potential to cause dyslipidemia and cardiovascular disease. This also suggests the need for larger studies with adult population from across the nation to get a clearer profile of thyroid disorders in India. Finally, this highlights the fact that in addition to iodine deficiency diseases, other thyroid disorders too need to be given equal importance in adult populations, especially in regions, which are moving from iodine deficiency to iodine sufficiency.

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Jignasa Student Study Project
On
Analysis of Contents
In
Fruits and Vegetable Juices

By

P.Soumya, A.Sravani, J.Supriya, K.Ravali, J.Akanksha, AyeshaAthar



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Karimnagar

CERTIFICATE

This is to certify that the work entitled “**ANALYSIS OF CONTENTS IN FRUITS AND VEGETABLES JUICES**” being submitted as a part of Jignasa-student study project by A.Sravani, P.Soumya, J.Supriya, K.Ravali, J.Akanksha and Ayesha Athar in chemistry is carried out in the Department Of Chemistry under the guidance and supervision of Dr.M.Prashanthi, Assistant Professor, Department of Chemistry, GDC(W) Karimanagar.

Date: 21-12-2021

Place: Karimnagar

(Dr.M.PRASHANTHI)

Project Supervisor

ACKNOWLEDGEMENT

It is our great pleasure to convey the depth of our feelings of gratitude to our research supervisor Dr.M.Prashanthi,Assistant Professor, Department of Chemistry, Government Degree College for Women, Karimnagar, for her dedicated guidance, constant encouragement. We sincerely thank Dr. T. Sreelakshmi, Principal, GDC(W) Karimangar, for her good wishes and encouragement in presenting project work.

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- Aim
- Introduction
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Introduction:

Fruits and vegetable are always a part of balanced diet. That means fruits vegetables provide our body the essential nutrients, i.e. Carbohydrates, proteins, vitamins and minerals. Again their presence in these is being indicated by some of our general observations, like -freshly cut apples become reddish black after some time. Explanation for it is that iron present in apple gets oxidized to iron oxide. So, we can conclude that fruits and vegetables contain complex organic compounds, and can be tested in any fruits or vegetable by extracting out its juice and then subjecting it to various tests which are for detection of different classes of organic compounds. Detection of minerals in vegetables or fruits means detection of elements other than carbon, hydrogen and oxygen.

Vegetable juice is a juice drink made primarily of blended vegetables and also available in the form of powders. Vegetable juice is often mixed with fruits such as apples or grapes to improve flavor. It is often a low-sugar alternative to fruit juice, although some commercial brands of vegetable juices use fruit juices as sweeteners, and may contain large amounts of sodium.

Our body needs important nutrients to support its healthy condition. Our food consumption should include healthy foods that contain good amount of nutrients sufficient enough to supply our body with its required daily nutrition. Nutrients like carbohydrates, proteins, fats, vitamins, minerals, etc. play vital and specific role to develop and sustain body.

This project deals with finding out various constituents and compositions of vegetables and fruits. Analyzing the type of nutrient present in a food item helps plan a balanced diet.

Aims and Objectives

To analyze some fruits & vegetables juice for the contents present in them, which helps to plan a balanced diet.

In the this project we aimed

- To determine the presence of Calcium, Magnesium, Potassium and Iron in Orange, Tomato and Orange Juice.
- To find out the acidity of these juices.
- To find out the presence of proteins and carbohydrates.

In this project presence of Carbohydrates, Proteins and minerals are analyzed through different experiments.

MATERIALS REQUIRED

- Test Tubes
- Burner
- Litmus paper
- Laboratory reagents
- Various fruits
- Vegetables juices

CHEMICALS REQUIRED

- P^H indicator
- Iodine solution
- Fehling solution A and Fehling solution B
- Ammonium chloride solution
- Ammonium hydroxide
- Ammonium oxalate
- Potassium sulpho-cyanide solution and picric acid.

PROCEDURE

The juices are made dilute by adding distilled water to it, in order to remove color and to make it colorless so that color change can be easily watched and noted down. Now test for food components are taken down with the solution.

1. Test For Acidity – Take 5ml of juice in a test tube and pH values should be noted down by dipping it in the test-tube. If it turns red, it means that the juice is acidic else it is basic..

2. Test For Starch – Take 2ml of vegetable juice in a test tube, and add a few drops of iodine solution to it. If the solution turns blue in color it indicates the presence of starch.

3. Test for Proteins – Take 5ml of 5% of NaOH solution and add 2 drops of CuSO_4 known as burial solution and add juice and shake well. If the solution turns violet in color it indicates the presence of proteins.

4. Test For Carbohydrates – Take 2ml of Fehling's solution A and B and 1ml of Fehling's solution B in a Test tube. If the solution turns red it indicates the presence of sugar like maltose, glucose, fructose and lactose.

5. Test For Potassium – Add 2ml of juice in a test tube and picric acid, yellow color precipitate indicates the presence of potassium.

6. Test For Calcium – Add 2 ml of vegetable juice and add NH_4Cl solution. Filter the solution and to the filtrate add 2 ml of ammonium oxalate solution. White precipitate indicates the presence of calcium.

7. Test for Magnesium – To 2ml of juice add NH_4OH and excess Disodium Hydrogen Phosphate . White precipitate indicates the presence of magnesium.

8. Test for Iron – To 2 ml of juice add a drop of Conc. Nitric acid. Boil the solution ,cool and add 2-3 drops of potassium sulpho cyanide solution. Blood red colour shows the presence of iron.

TEST, OBSERVATION & INFERENCE

ORANGE JUICE

TEST FOR ACIDITY

Take 5ml of orange juice in a test tube and dip a pH paper in it. If pH is less than 7 the juice is acidic else the juice is basic. The pH comes out to be 6. Orange Juice is weak acid.

TEST FOR STARCH

Take 2 ml of juice in a test tube and add few drops of iodine solution. It turns blue black in color than the starch is present.

TEST FOR CARBOHYDRATES (FEHLING'S TEST)

Take 2 ml of juice add 1 ml of Fehling solution A & B and boil it. No red colored precipitate obtained. Carbohydrates are absent.

TEST FOR IRON

Take 2 ml of juice add drop of conc. Nitric acid. Boil the solution cool and add 2-3 drops of potassium sulpho-cyanide solution. Absence of blood red color. Iron is absent.

TEST FOR CALCIUM

Take 2 ml of juice add Ammonium chloride and ammonium hydroxide solution. Filter the solution and to the filtrate add 2 ml of Ammonium Oxalate solution. White ppt. indicates the presence of calcium. Calcium is present.

TEST FOR POTASSIUM

Add 2ml of juice in a test tube and add picric acid, yellow color precipitate indicates the presence of potassium.

TEST FOR MAGNESIUM

To 2ml of juice add NH_4OH and excess Disodium Hydrogen Phosphate in a test tube. White precipitate indicates the presence of magnesium.

TOMATO JUICE

TEST FOR ACIDITY

Take 5 ml of juice in a test tube and dip pH paper in it. If pH is less than 7 the juice is acidic and if the pH is more than 7 the juice is basic. The P^H comes out to be 5. So tomato juice is acidic.

TEST FOR STARCH

Take 2 ml of juice in a test tube and few drops of iodine solution.
Absence of blue black color. Starch is absent.

TEST FOR CARBOHYDRATES (FEHLING'S TEST)

Take 2 ml of juice and 1 ml of Fehling solution A & B and boil it. Red precipitate is obtained.
Carbohydrates are present in tomato.

TEST FOR IRON

Take 2 ml of juice add drop of conc. Nitric acid boil the solution cool and add 2-3 drops of potassium sulpho-cyanide solution. Blood red colors show the presence of iron. Presence of blood red color. Iron is present.

TEST FOR CALCIUM

Take 2 ml of juice add Ammonium chloride and ammonium hydroxide solution. Filter the solution and to the filtrate add 2 ml of Ammonium Oxalate solution. White precipitates indicate the presence of calcium. Calcium is present.

TEST FOR MAGNESIUM

To 2ml of juice add NH_4OH and excess Disodium Hydrogen Phosphate in a test tube. White precipitate indicates the presence of magnesium.

TEST FOR POTASSIUM

Add 2ml of juice in a test tube and add picric acid, yellow color precipitate indicates the presence of potassium.

CARROT JUICE

TEST FOR ACIDITY

Take 5 ml of juice in a test tube and dip pH paper in it. If pH is less than 7 the juice is acidic and if the pH is more than 7 the juice is basic. The P^H comes out to be 5. So carrot juice is acidic.

TEST FOR STARCH

Take 2 ml of juice in a test tube and few drops of iodine solution.

Absence of blue black color. Starch is absent.

TEST FOR CARBOHYDRATES (FEHLING'S TEST)

Take 2 ml of juice and add 1 ml of Fehling solution A & B and boil it.

Presence of red color precipitates. Carbohydrates are present in carrot.

TEST FOR POTASSIUM

Take 2 ml of juice add picric acid to the solution. Yellow colored ppt shows the presence of potassium. Potassium is present.

TEST FOR CALCIUM

Take 2 ml of juice add Ammonium chloride and ammonium hydroxide solution. Filter the solution and to the filtrate add 2 ml of Ammonium Oxalate solution.

Absence of white ppt. Calcium is absent.

TEST FOR MAGNESIUM

To 2ml of juice add NH_4OH and excess Disodium Hydrogen Phosphate in a test tube. White precipitate indicates the presence of magnesium.

TEST FOR POTASSIUM

Add 2ml of juice in a test tube and add picric acid, yellow color precipitate indicates the presence of potassium.

CONCLUSION

After analyzing the vegetables and fruits it can be well concluded that all of them contain one or the other compounds vital for body functioning. It is observed that carbohydrate is a predominant constituent. It is a natural merit, as living organism require carbohydrate the most common for generating energy.

Among minerals presence of calcium is considerable as its present in all the selected food items. Iron, magnesium and are also present sufficiently.

The results throw a light on significance of vegetables and fruits as their constituents are vital compounds and nutrients.

- Most of the Fruits and Vegetable contain Carbohydrates.
- Calcium is present in Vegetables as well as Fruits.
- Starch is present in Vegetables and Fruits.
- Iron is present in Vegetable Juice and in Fruits.

The deficiency of these nutrients can lead to various metabolic disorders. So, besides cereals, milk and its products and non-vegetarian food items, vegetable and fruits must be included in a daily balanced diet of all.

Therefore it can be concluded that both Fruit juices as well as Vegetable juices are necessary in our daily diet.

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A PROJECT REPORT ON
**IMPACT OF GOODS AND SERVICES TAX ON
CONSUMERS: A STUDY IN KARIMNAGAR DISTRICT**



JIGNASA 2021-22

SUBMITTED FOR
JIGNASA - STUDENT STUDY PROJECT

BY

B.A. I YEAR E/M

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This is to certify that the work entitled “IMPACT OF GOODS AND SERVICES TAX ON CONSUMERS: A STUDY IN KARIMNAGAR DISTRICT ” is submitted as a part of Jignasa - student study project. This work is carried out by **MALEEHA SULTANA, SUMAYYA ARSHEEN, D.KEERTHI PRIYA, N.ROHINI, NAZNEEN SAKEENA, (BA I YEAR, E/M STUDENTS)** in the Department of Economics, Govt. Degree College (W), Karimnagar under my guidance and supervision.

Date : 17-12-2021

Place : KARIMNAGAR

(M.SHAKUNTHALA)

SUPERVISOR

DECLARATION

We declare that the work presented in this project work entitled “IMPACT OF GOODS AND SERVICES TAX ON CONSUMERS: A STUDY IN KARIMNAGAR DISTRICT ” is entirely original and has been carried out by us in the Department of Economics, Govt. Degree College (W), Karimnagar, Telangana, India.

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Introduction

Goods and Services Tax is stated to be one of the biggest tax reforms in India, which would not only impact the business but also the common man.

The primary impact to be felt by the consumers would change in prices of goods and services on account of GST rates.

In terms of impact in prices, while services would mostly be more expensive in the initial phases, impact on prices of goods could be a mixed bag. In the long run, once the benefits of GST are expected to kick-in in terms of higher input credits and reduction in cascading effect, it is anticipated that the inflationary effect will come down and prices, in general, would come down and stabilize.

In services, the tax rate has increased from 15% to 18%. The 3% increase could potentially mean an increase in the price of services by 3% for the common man, in the short run.

Within the household budget, there are likely to be some obvious gainers and some obvious losers but once the law and pricing of commodities reach steady state, all consumers should gain. We have provided a few examples to explain the impact of GST on the common man, the impact on pricing on account of additional credits and hence reduced cost of supply is separate.

GST is expected to bring greater transparency, improve compliance levels and create a common playing field for businesses.

Need for the Study

- This study will help us to examine the impact of GST after its implementation.
- Also the study will show the benefits of GST after its implementation.
Ex: (Eliminating the cascading effects of taxes), (Reduce tax evasion and increase the revenue and GDP by widening the tax base)
- There are various taxes that have to pay at every stage and differently collected by State and Central Government and rates differ from one state to another. If we talk about GST, it will unify the whole nation and taxes will be divided among Central and State Governments, which will make easier to provide services and goods across the country, as no more additional state taxes will be imposed. It is important to know about the advantages and disadvantages of G.S.T.

Scope of the Study

The study covers the general consumers about the knowledge in the GST regime. The study covers the consumers and their buying behavior and the sales performance, with respect to the period after the implementation of GST. GST is expected to rationalize and simplify the consumption tax structure at the centre and state level. GST will also call for fundamental redesigning of the value chain.

Objectives of the Study

1. To know the impact of GST on consumers.
2. To acquaint about the advantages of single tax system.
3. To compare the short run and long run effects on common man regarding GST.

Research Methodology

Keeping the facts related in view an attempt has been made in the study to find out the impact of GST on common man, society in long run and short run period.

Primary and secondary data have been used to present the study.

Survey:

The survey was done on 50 respondents in Karimnagar District. The study period is 22.11.2021-30.11.2021. The primary data was collected through a questionnaire.

Statistical Tools Used

Statistical tools used for the study are tables, percentage analysis and relevant graphs like pie charts

Hypothesis

The present study has certain hypothesis which can be justified with the help of secondary and primary data sources. The hypotheses listed for the study are as follow:

1. Impact of GST is dissimilar on various groups of society.
2. GST has been imposed and some consumers are dissatisfied.

Review of Literature

Anshu Ahuja (2017) , in the research paper titled “Perception of people towards goods and services tax” found that, the consumers are satisfied that goods and services tax will reduce the tax evasion in the country and will increase the transparency in the tax structure. He further suggested that, the government should give some relaxation to farmers and small scale business to avoid the adverse impact of goods and services tax on their income level.

Gowtham Ramkumar (2017) , in his study titled “Impact of GST on consumer spending ability in Chennai City” concluded that, the consumers are left with less money after GST, rise in inflation level and fall in prices of certain goods after GST implementation. He further concluded that, the GST rates will have a significant impact on the spending ability of the consumers and suggested that benefits of input tax credit must be transferred by the companies to the consumers.

Krishan Kumar (2017), "A study on Consumers perception towards GST (Goods and service tax)" - has stated that the consumers have not yet got complete understanding about the basic concept of GST. So, the researcher has suggested to make more efforts to create a basic awareness about the concept of GST. He further more suggested that there is a need to provide training programmes for the professionals of almost all the sectors of the economy for its successful implementation.

Manoj Kumar Agarwal (2017) , in his research paper titled “People’s perception towards GST – An empirical study” found that, people feel that GST has increased legal compliances and it will increase the tax collection of the government. He further found that, the GST has increased the tax burden of businessmen and suggested that efforts should be made on the part of the government to ensure people have a proper understanding of the goods and services tax implemented in India.

Theoretical Framework

Taxes are generally classified into direct and indirect taxes. Direct taxes are taxes on income [individual, corporate, real estate, stamp duty], while indirect taxes are taxes on goods [sales] and services [custom duties and exercise duties]. Of the above mentioned taxes GST is included in the second type, where it is a system of taxation of expenses or use of goods and services. GST is a mechanism for collecting revenue from individuals companies other bodies for the purpose of financing government spending especially in socio economic development programs. According to the experts, It is a mandatory fee imposed by the government on individuals, firms or organisation and concern, where the money will be reused or spent by the government on the activities and project that provide mutual benefit to the community. It was brought to eradicate the multiple cascading taxes levied by the central and state governments. It was introduced as [122nd] constitutional amendment bill. It is governed by GST council and its chairman is the Finance Minister of India. In GST, goods and services are taxed at different rates, 5%,12%,18% and 28%.There is a special rate of 0.25% on rough precious and semi-precious stones and 3% on gold.

Definition

“GST is a tax on goods and services with value addition in each stage having comprehensive and continuous chain of set of benefits from the producers’ or sales producer’s point up to retailers level where only the final consumer should bear the tax”.

Importance of GST

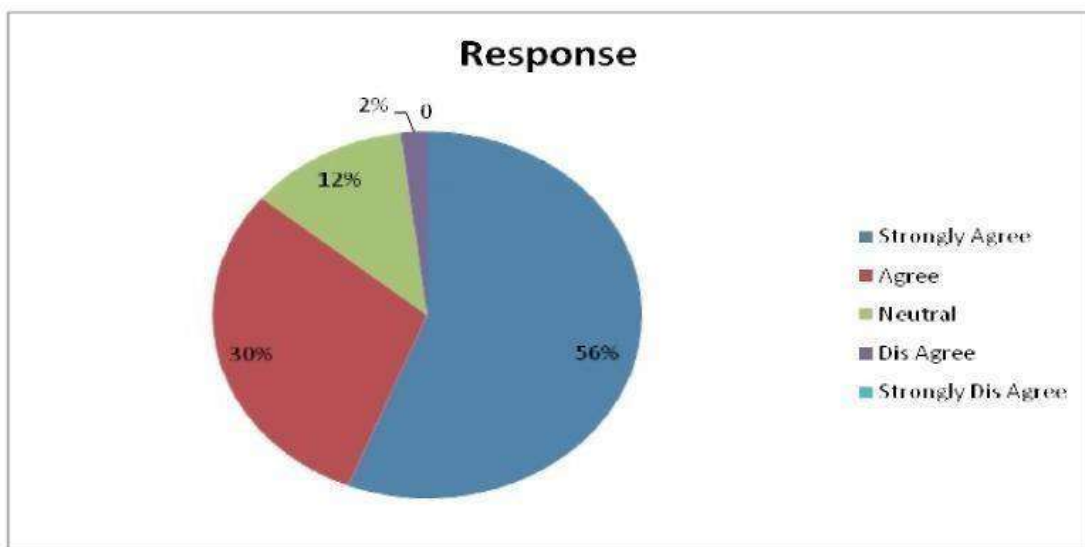
GST helps in the eradication of many indirect taxes which eventually leads to the removal of unaccounted money as it is tied up to Digital India scheme. As a result, digitalization would bring the money circulation into account. It will be important for the economy in following ways: tax evasion, tax avoidance, limits the black market and helps in the development of backward states. This will help to remove the local tax bias, which means a person, can set a factory in any state without worrying about the tax rates. This study brings the pathway to analyze the buying behaviour of customers and sales performance in registered retail mart, know the public attitude towards GST.

Data Analysis

1. 'GST is a very good tax reform for India'

| Sl. No. | Response | No. of Respondents | Percentage (%) |
|---------|--------------------|--------------------|----------------|
| 1 | 'Strongly agree' | 28 | 56 |
| 2 | Agree | 15 | 30 |
| 3 | 'Neutral' | 6 | 12 |
| 4 | Dis Agree | 1 | 2 |
| 5 | Strongly Dis Agree | 0 | 0 |
| | Total | 50 | 100 |

Source: Data collected from primary sources through questionnaire method



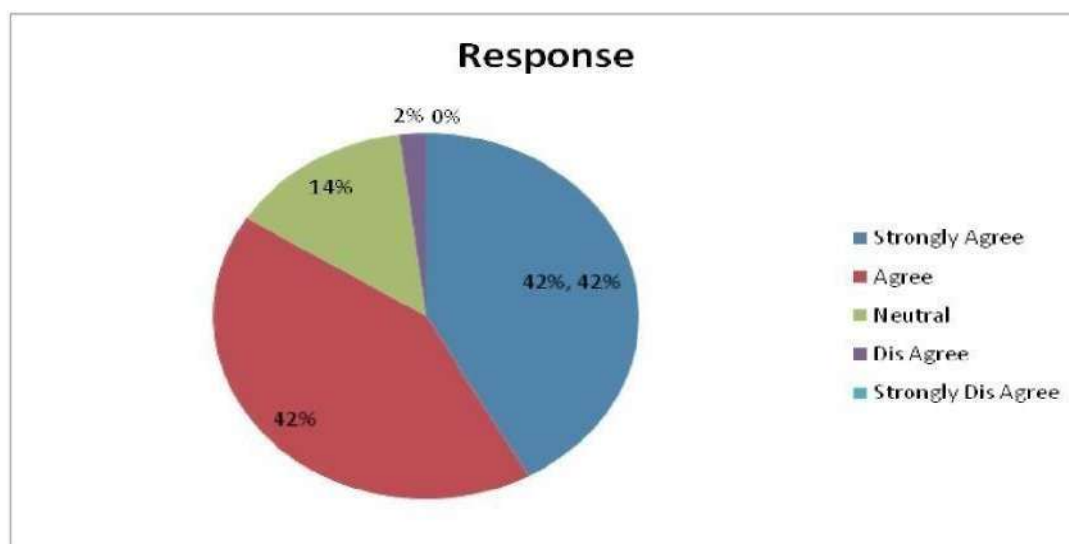
Interpretation :

The above chart depicted that majority of the respondents satisfied with the statement that GST is a very good tax reform for India. 30% 'Agreed' 12 % are 'Neutral'. Hence it is concluded that majority of the respondents i.e. 56 % are Strongly agreed and 30% agreed with this statement.

2. 'GST has increased various legal formalities'

| Sl. No. | Response | No. of Respondents | Percentage(%) |
|---------|---------------------|--------------------|---------------|
| 1 | 'Strongly agree' | 21 | 42 |
| 2 | Agree | 21 | 42 |
| 3 | 'Neutral' | 7 | 14 |
| 4 | Dis Agree | 1 | 2 |
| 5 | 'Strongly disagree' | 0 | 0 |
| | Total | 50 | 100 |

Sources: Data collected from primary sources through questionnaire method.



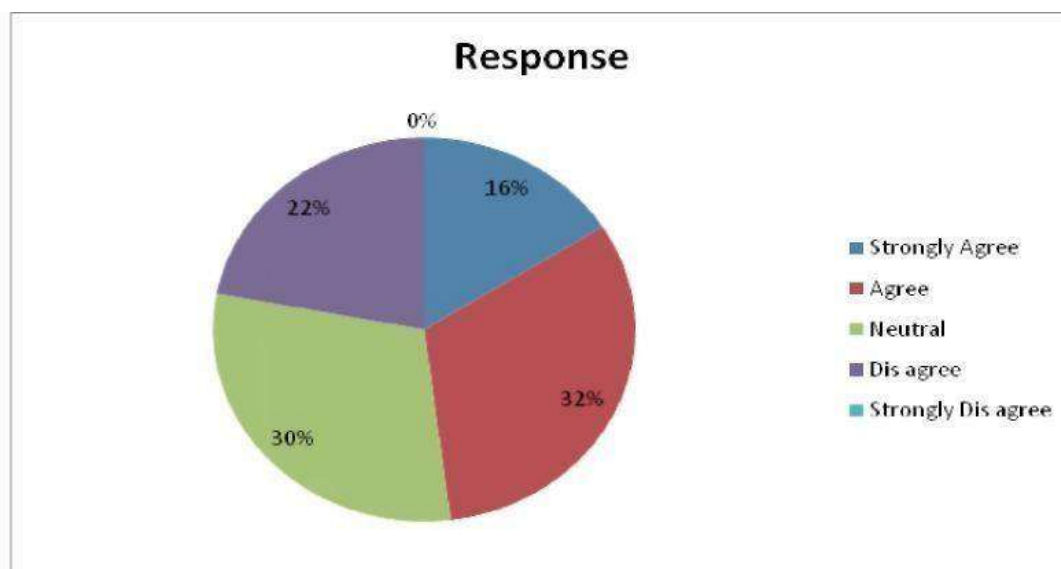
Interpretation :

The above table shows that majority of the respondents agreed with the statement that after implementation of GST various types of formalities are increased. 42% respondents 'Strongly agreed'. 42% Agreed and 14% are 'Neutral'. So it is concluded that majority of the respondents supported this statement.

3. 'GST has increased the tax burden on common man'

| Sl. No. | Response | No. of Respondents | Percentage(%) |
|---------|-------------------|--------------------|---------------|
| 1 | 'Strongly agree' | 8 | 16 |
| 2 | Agree | 16 | 32 |
| 3 | 'Neutral' | 15 | 30 |
| 4 | Disagree | 11 | 22 |
| 5 | Strongly Disagree | 0 | 0 |
| | Total | 50 | 100 |

Sources: Data collected by Primary sources through the questionnaire method .



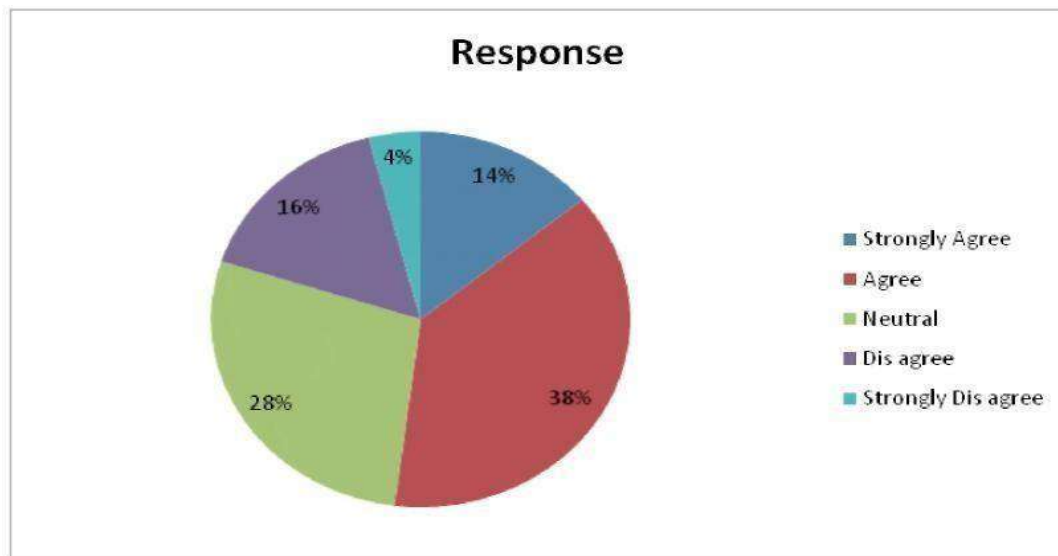
Interpretation :

The above table shows that majority of the respondents i.e. 32% 'Agreed' with this statement and 30% are 'Neutral' and 22% Disagreed'. 16% respondents 'Strongly agreed'. So it is concluded that GST has increased the burden on Common man.

4. 'The impact of GST is negative on consumers'

| Sl. No. | Response | No. of Respondents | Percentage(%) |
|---------|-------------------|--------------------|---------------|
| 1 | 'Strongly agree' | 7 | 14 |
| 2 | Agree | 19 | 38 |
| 3 | 'Neutral' | 14 | 28 |
| 4 | Disagree | 8 | 16 |
| 5 | Strongly Disagree | 2 | 4 |
| | Total | 50 | 100 |

Sources: Data collected from Primary sources through questionnaire method .



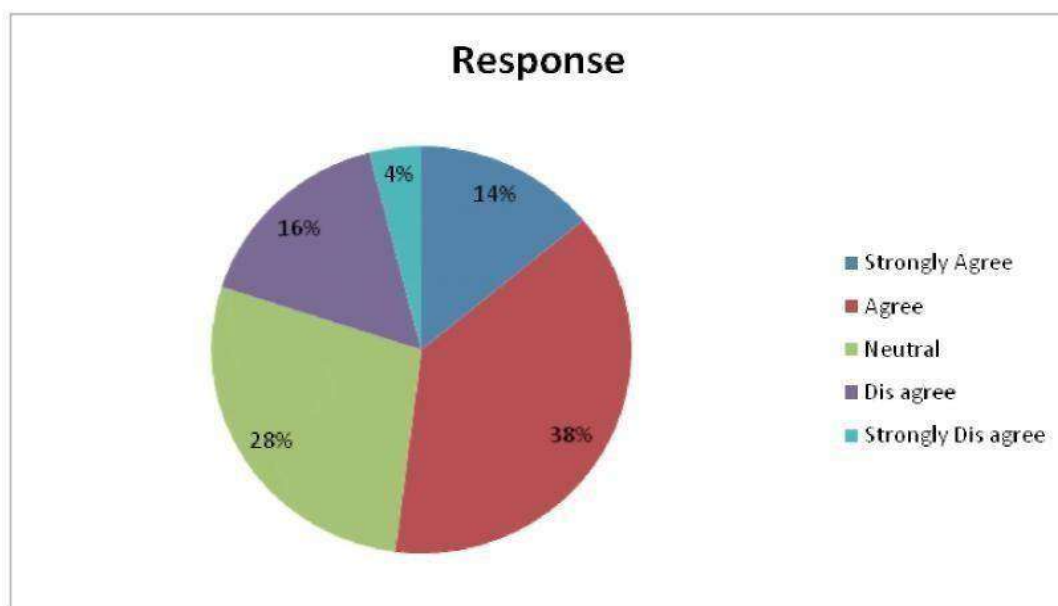
Interpretation :

From the above table and chart it is concluded that 38% respondents 'Agreed' and 14% 'Strongly agreed' the statement really. 28% are 'Neutral' to this statement but 16% and 4% are Disagreed and Strongly Disagreed. Therefore it is concluded that the impact of GST is negative on consumers.

5. 'GST has increased the tax burden on businessmen'

| Sl. No. | Response | No. of Respondents | Percentage (%) |
|---------|-------------------|--------------------|----------------|
| 1 | 'Strongly agree' | 12 | 24 |
| 2 | Agree | 19 | 38 |
| 3 | 'Neutral' | 13 | 26 |
| 4 | Disagree | 6 | 12 |
| 5 | Strongly Disagree | 0 | 0 |
| | Total | 50 | 100 |

Sources: Data collected from Primary Sources through questionnaire method .



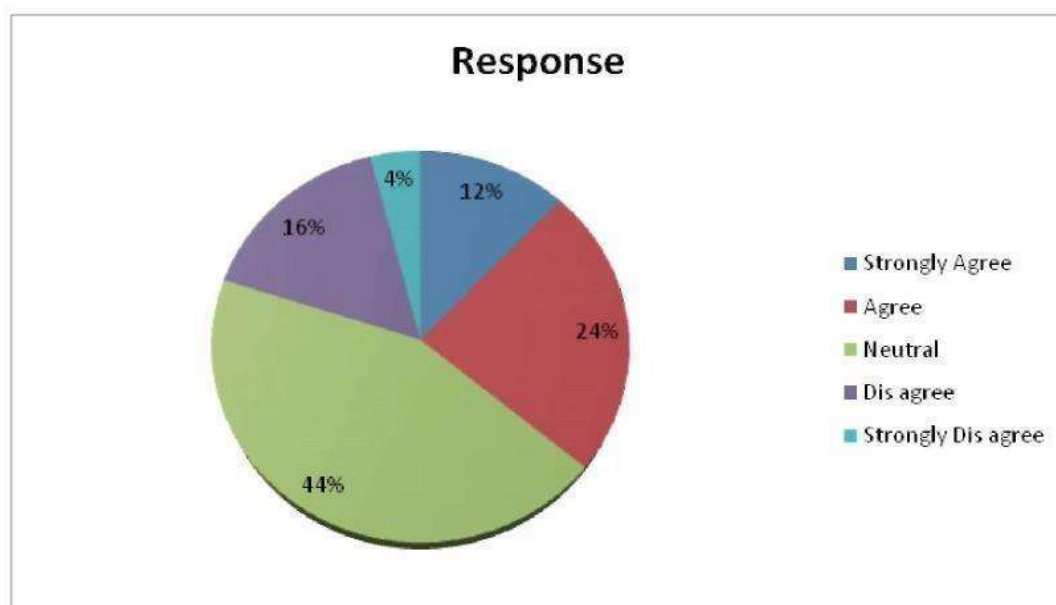
Interpretation :

The above table and figure show that maximum respondents (38%) Agreed that 'GST has increased the tax burden on businessmen'. 24% 'Strongly agreed', 26% are 'Neutral' and 12% Disagreed this statement. Hence, it is concluded that maximum results are positive for this statement.

6. 'Govt. has imposed GST on people without any preparation'

| Sl. No. | Response | No. of Respondents | Percentage (%) |
|---------|-------------------|--------------------|----------------|
| 1 | 'Strongly agree' | 6 | 12 |
| 2 | Agree | 12 | 24 |
| 3 | 'Neutral' | 22 | 44 |
| 4 | Disagree | 8 | 16 |
| 5 | Strongly Disagree | 2 | 4 |
| | Total | 50 | 100 |

Sources: Data collected from Primary sources through questionnaire method .



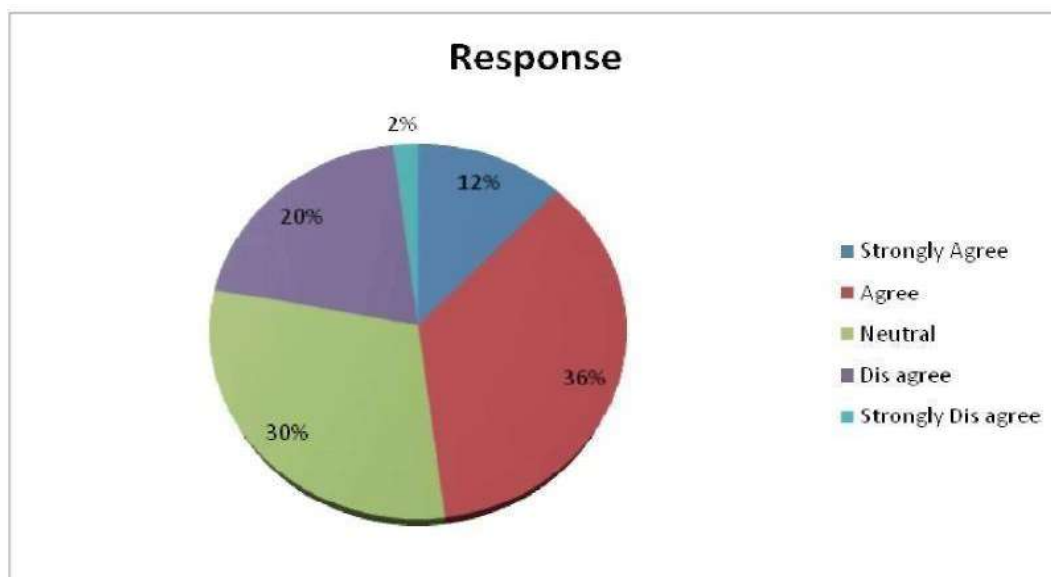
Interpretation :

The above table shows that 24% respondents Agreed the statement but maximum respondents i.e. 44% are 'Neutral' and 16% disagreed. 12% respondents 'Strongly agreed' and 4% 'Strongly disagreed'.

7. 'GST is very difficult to understand'

| Sl.No. | Response | No. of Respondents | Percentage (%) |
|--------|--------------------|--------------------|----------------|
| 1 | 'Strongly agree' | 6 | 12 |
| 2 | Agree | 18 | 36 |
| 3 | 'Neutral' | 15 | 30 |
| 4 | Dis agree | 10 | 20 |
| 5 | Strongly Dis agree | 1 | 2 |
| | Total | 50 | 100 |

Sources: Data collected by Primary Sources through questionnaire method .



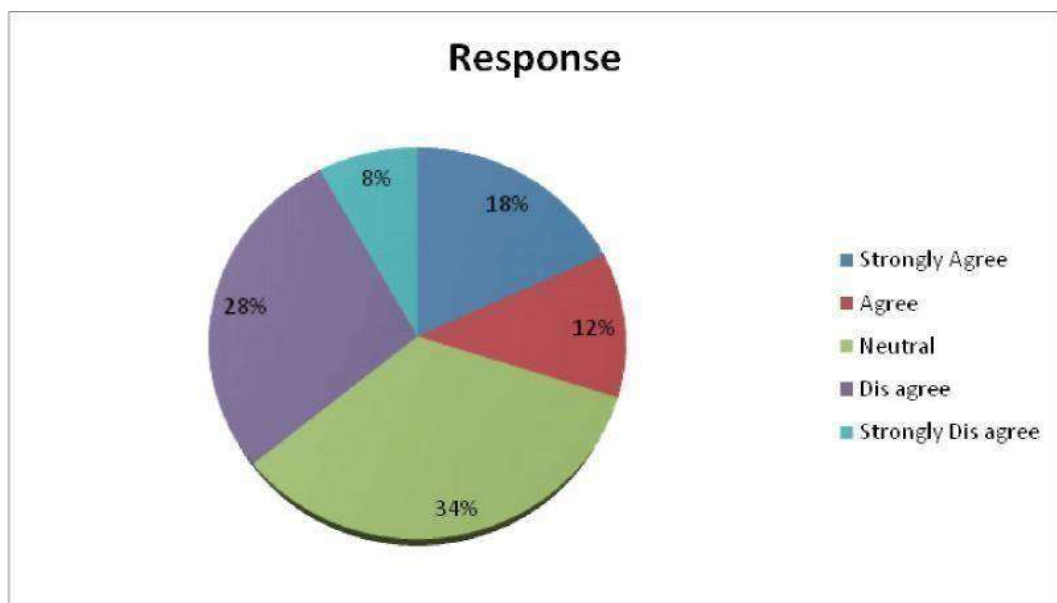
Interpretation :

Above table depicts that majority of the respondents i.e. 36% 'Agreed' and 30% are 'Neutral' and 12% 'Strongly agreed' with the statement i.e. 'GST is very difficult to understand'. 20% 'Disagreed' and 2% 'Strongly disagreed' with this statement. Hence, it is concluded that maximum respondents 'Agreed'. Therefore it is clear that it is very difficult to understand GST.

8. 'GST will increase the inflation in the country'

| Sl.No. | Response | No. of Respondents | Percentage(%) |
|--------|-------------------|--------------------|---------------|
| 1 | 'Strongly agree' | 9 | 18 |
| 2 | Agree | 6 | 12 |
| 3 | 'Neutral' | 17 | 34 |
| 4 | Disagree | 14 | 28 |
| 5 | Strongly Disagree | 4 | 8 |
| | Total | 50 | 100 |

Sources: Data collected from Primary sources through questionnaire method .



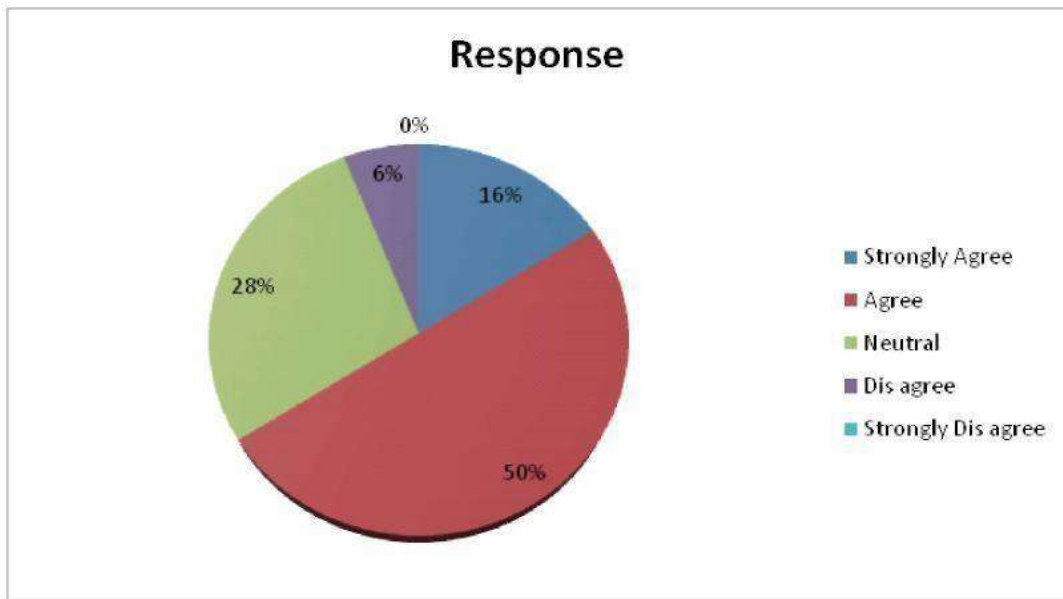
Interpretation :

The above table and figure 18% 'Strongly agreed' and 12% respondents 'Agreed' this statement. 34% are 'Neutral' and 28% 'Disagreed' this statement. 8% respondents 'Strongly disagreed'.

9. 'GST is beneficial in long run'

| Sl.No. | Response | No. of Respondents | Percentage(%) |
|--------|-------------------|--------------------|---------------|
| 1 | 'Strongly agree' | 8 | 16 |
| 2 | Agree | 25 | 50 |
| 3 | 'Neutral' | 14 | 28 |
| 4 | Disagreed | 3 | 6 |
| 5 | Strongly Disagree | 0 | 0 |
| | Total | 50 | 100 |

Sources : Data collected from Primary sources by questionnaire method.



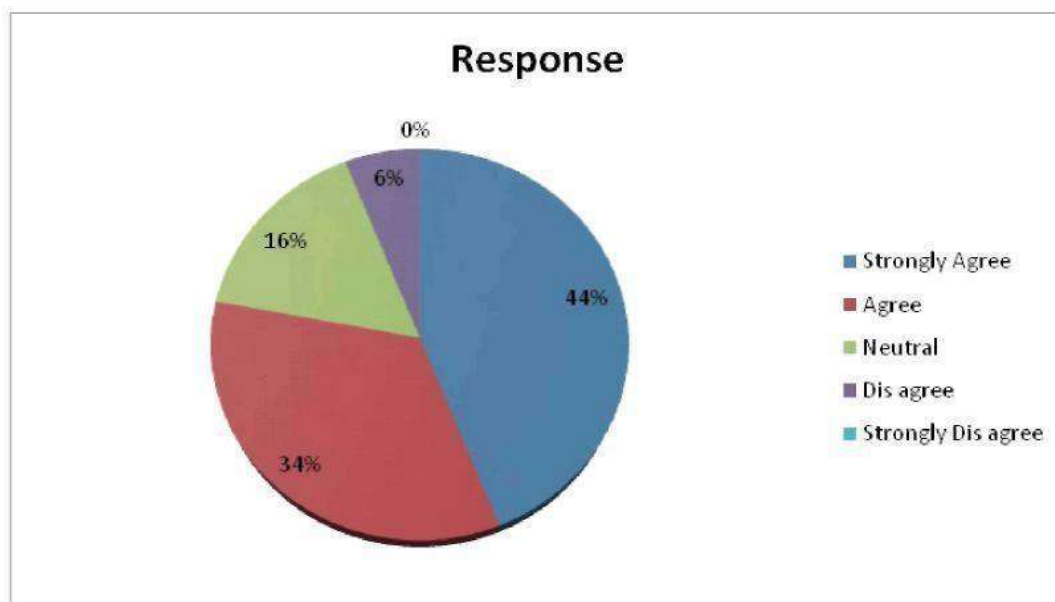
Interpretation :

From the above figure it is concluded that 50% respondents supported that 'GST is beneficial in long run'. 16% 'Strongly agreed' with the statement and 28% are 'Neutral'. Hence it is clear that Goods and Services Tax is beneficial in the long run.

10. 'GST will increase the tax collection of the Government'

| Sl.No. | Response | No. of Respondents | Percentage (%) |
|--------|-------------------|--------------------|----------------|
| 1 | 'Strongly agree' | 22 | 44 |
| 2 | Agree | 17 | 34 |
| 3 | 'Neutral' | 8 | 16 |
| 4 | Disagree | 3 | 6 |
| 5 | Strongly Disagree | 0 | 0 |
| | Total | 50 | 100 |

Sources: Data Collected from primary sources by questionnaire method .



Interpretation :

The above table shows that majority of the respondents i.e. 44 % 'Strongly agreed' and 34% Agreed with this statement. 16% are 'Neutral' and 6% Disagreed. Hence it is concluded that GST will increase the tax revenue of the Government.

Findings

1. 56 % respondents opined that GST is a very good tax reform for India.
2. Maximum respondents opined that 'GST has increased various legal formalities'.
3. It increased the tax burden on common man.
4. The impact of Goods and Services Tax on consumers is negative.
5. Maximum respondents opined that GST is very difficult to understand.
6. Goods and Services Tax is beneficial in the long run.
7. GST will increase the tax revenue of the Government.
8. The maximum of the respondents' notions are very positive towards GST.

Conclusion

GST will be able to break the complicated structure of separate central and state taxes and to create a uniform taxation system which will be applicable across the entire country. Taxes will be implemented more effectively since a network of indirect taxes like excise duty, service tax, central sales tax, value added tax (VAT) and octroi will be replaced by one single tax i.e. GST. But do consumers get benefits from GST? There is no definite answer to this, as for the producers and the government, the straight answer is yes. But the benefits from GST for consumers are not that simple. This is because the impact of GST is different on various goods and services. Obviously it will bring down the prices and lead to increase the demand for goods and services which would benefit the consumers, but not everything will become cheaper.

Suggestions

- The government should take necessary care for prices of essential commodities so that there will not be any hike in prices and thus the consumers will not be suffered.
- Disputes on GST must be addressed in a speedy manner.
- The government should make sure to have a good control over the revenue collected from GST.

Questionnaire

1. 'GST is a very good tax reform for India'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

2. 'GST has increased various legal formalities'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

3. 'GST has increased the tax burden on common man'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

4. 'The impact of GST is negative on consumers'

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

5. 'GST has increased the tax burden on businessmen'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

6. 'Govt. has imposed GST on people without any preparation'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

7. 'GST is very difficult to understand'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

8. 'GST will increase the inflation in the country'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

9. 'GST is beneficial in long run'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

10. 'GST will increase the tax collection of the government'.

- 'Strongly agree'
- 'Agree'
- 'Neutral'
- 'Disagree'
- 'Strongly disagree'

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JIGNASA STUDY PROJECT

On

Study of ill effects of electromagnetic waves on living Beings and methods to reduce the effect.

By

G. Kavya, T. Nishitha, M. Srujana, Muskan, D. Navaneetha



Supervisor

P. Aruna

Department of Physics
Govt. Degree College for Women
Karimnagar

CERTIFICATE

This is to certify that the work entitled **“Study of ill effects of electromagnetic waves on living Beings and methods to reduce the effect”** being submitted as a part of Jignasa-student study project by **G. Kavya, T. Nishitha, M. Srujana, Muskan and D. Navaneetha** in Physics is carried out in the Department of Physics under the guidance and supervision of **Smt. P.Aruna**, Assistant Professor, Department of Physics , GDC(W), Karimnagar.

Date : 21-12-2021

(P.ARUNA)

Place : Karimnagar

Project Supervisor

Acknowledgements

It is our great pleasure to convey the depth of our feelings of gratitude to our research supervisor Smt. P.Aruna, Assistant Professor, Department of Physics, Government Degree College for Women, Karimnagar, for her dedicated guidance, constant encouragement. We also express our gratitude to N. Satyanarayana Reddy, HOD Physics and CH. Narsimhulu lecturer in Physics. We sincerely thank Dr. T. Sreelakshmi, Principal, GDC(W) Karimnagar, for her good wishes and encouragement in presenting project work.

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Contents

- Aim
- Introduction
- What Is an Electromagnetic Radiation?
- Review of Literature
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- Observation & Data collection
- Graph
- Natural ways to reduce the EMFs
- Conclusions
- References

➤ Introduction:



Since the beginning of the universe, the sun has sent out waves that create EMFs, or radiation. At the same time the sun sends out EMFs, we can see its energy radiating out. This is visible light. In the 20th century, electric power lines and indoor lighting spread across the world. Scientists realized that the power lines supplying all that energy to the world's population were sending off EMFs, just like the sun does naturally. Over the years, scientists learned that many of the emerging electrical appliances also create EMFs.

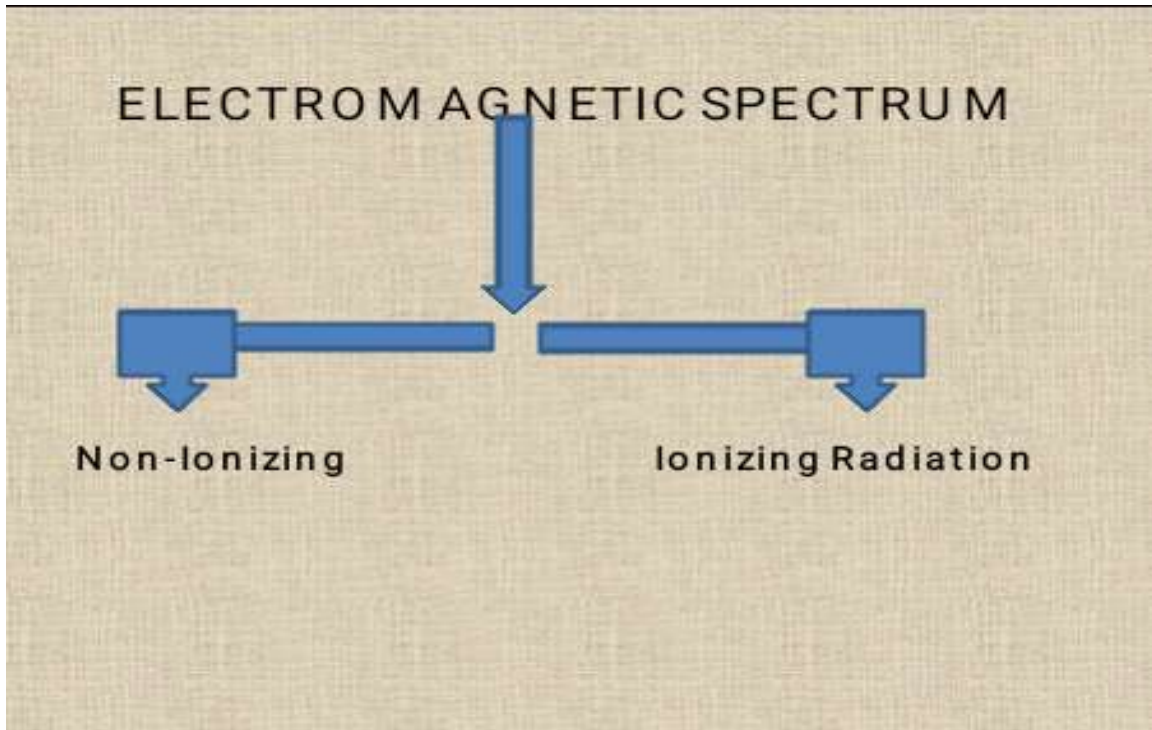
➤ **What Is an Electromagnetic Radiation?**

Electromagnetic radiation may surround us in modern everyday life, but what *is* it? And is it actually safe? While some forms of electromagnetic radiation are known to be harmful, other forms are more controversial. We'll discuss the different types and the science surrounding safety below.

A basic point to remember is that EMFs come from all sorts of things, including our microwave ovens, cell phones, cordless telephones, smart meters, TV and radio broadcasts, computers ect.,

➤ **Review of Literature :**

There are electric fields that develop through variances in voltage, and there are magnetic fields that develop from the flow of electric current. The higher the electric field or the greater the magnetic field, the stronger the electromagnetic radiation. We can have electric fields without a current; however, if there is a current, the magnetic field will vary in how much power it uses, whereas the electric field will be constant.



➤ **Non-ionizing Radiation**

This category of electromagnetic radiation includes low- to mid-frequency radiation, which is generally perceived as harmless due to its lack of potency.

- Extremely Low Frequency (ELF)
- Radiofrequency (RF)
- Microwaves
- Visual Light
- Source examples include
 - Microwave ovens
 - Computers
 - House energy smart meters
 - Wireless (Wi-Fi) networks
 - Cell Phones
 - Bluetooth devices
 - Power lines

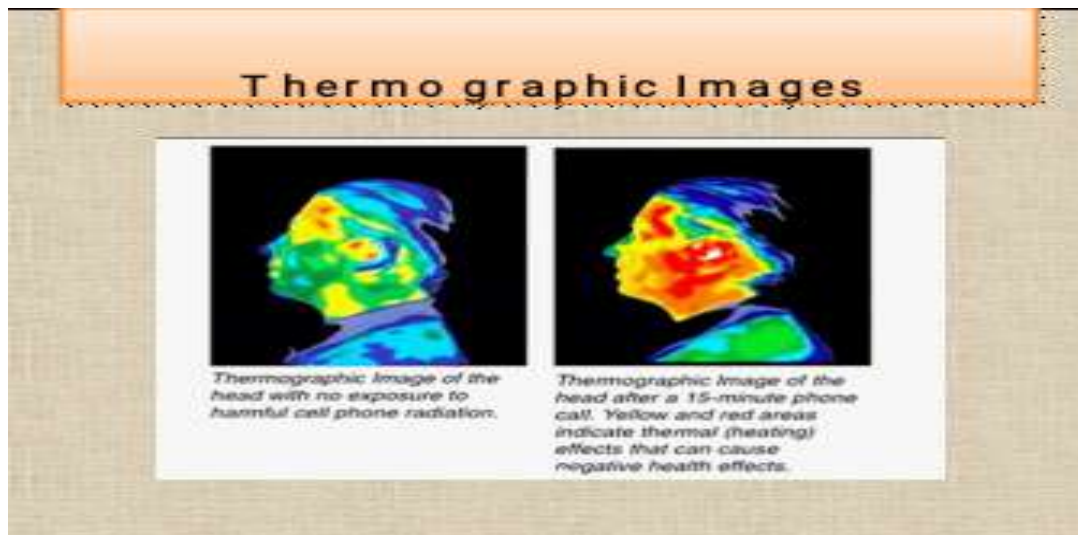
- MRIs

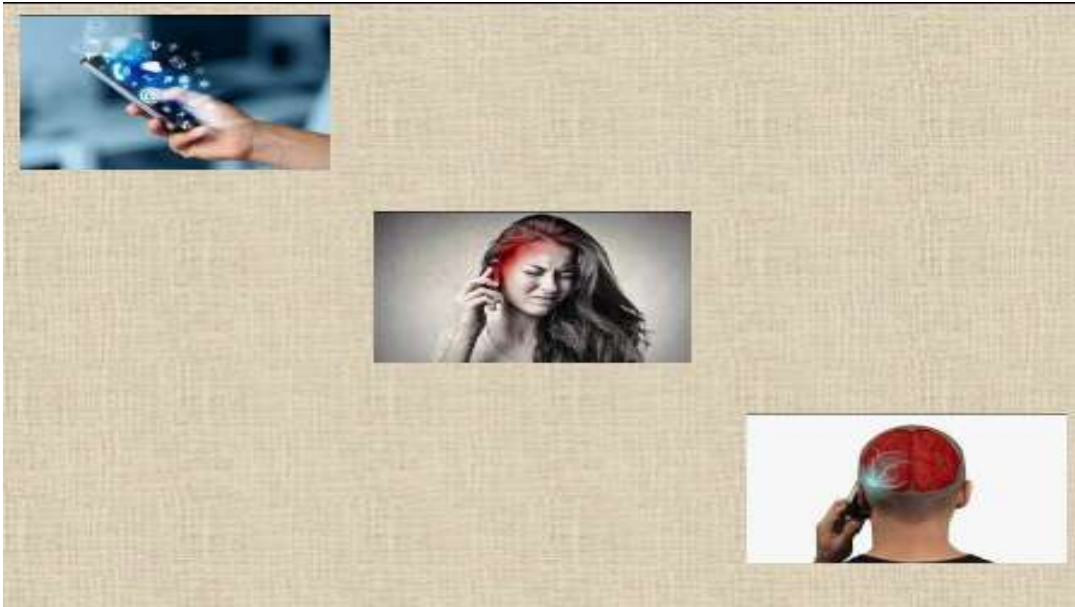
➤ Ionizing Radiation

This type of electromagnetic radiation includes mid- to high-frequency radiation which can, under certain circumstances, lead to cellular and or DNA damage with prolonged exposure.

- Ultraviolet (UV)
- X-Rays
- Gamma
- Sources of ionizing electromagnetic radiation include:
 - Ultraviolet light
 - X-Rays
 - Some gamma rays

➤ ILL effects of EM radiation





➤ ILL effects of EM radiation

- Dizziness
- Electromagnetic Radiation May Cause Cancer
- Affects Brain Function
- racing heart or irregular heartbeat
- weakness
- anxiety
- fatigue
- feeling faint

- difficulty concentrating
- chest pain or pressure

➤ **Research Methodology:**

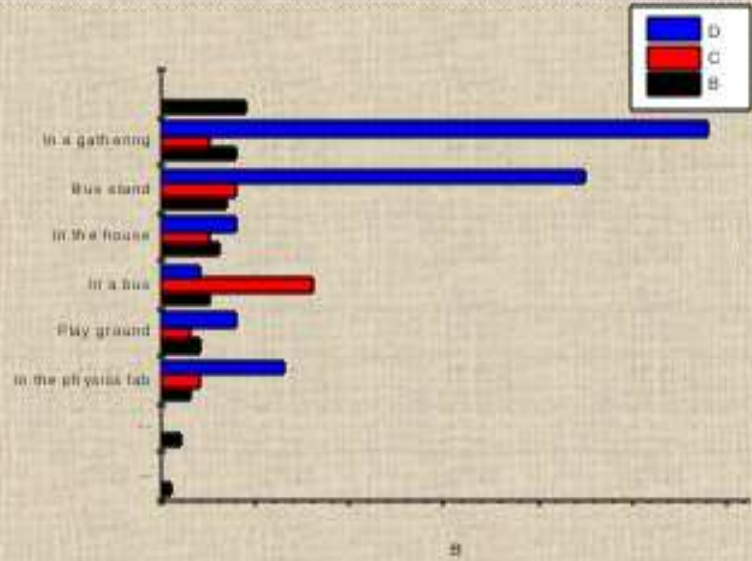
- We mainly concentrated on the Electro Magnetic radiation from the mobile phones. In our findings there are many apps available now days to show how much we are exposed to EM radiation. So, we downloaded an app called ELECTRO SMART in our mobiles and found the exposure in different places.
- We collected ourselves the statistical data and tabulated all.
- By using software called Origin 8.5, we have plotted the graphs.

➤ **Observation & Data collection:**

| S.NO . | PLACE | RATE OF EXPO SURE | SOURCE : W I-FI | SOURCE: 4G |
|--------|----------------|-------------------|-----------------|------------|
| 1. | Physics Lab | 68 | 4 | 13 |
| 2. | Play ground | 58 | 3 | 8 |
| 3. | In a bus | 65 | 16 | 4 |
| 4. | In the house | 64 | 5 | 8 |
| 5. | Bus stand | 82 | 8 | 45 |
| 6. | In a gathering | 81 | 5 | 58 |

➤ Graph:

D - 4G source
C - Wi-Fi & other Network
B - Rate of exposure



➤ Natural ways to reduce the EMFs :

Natural Ways to Reduce the Dangers of E M F s

- 1. Keep our Cell Phone and Computer at a Distance W hen Possible
- 2. Avoid Bluetooth Headsets and Use Speak erphone Instead
- 3. Try Earthing
- 4. Indoor plants

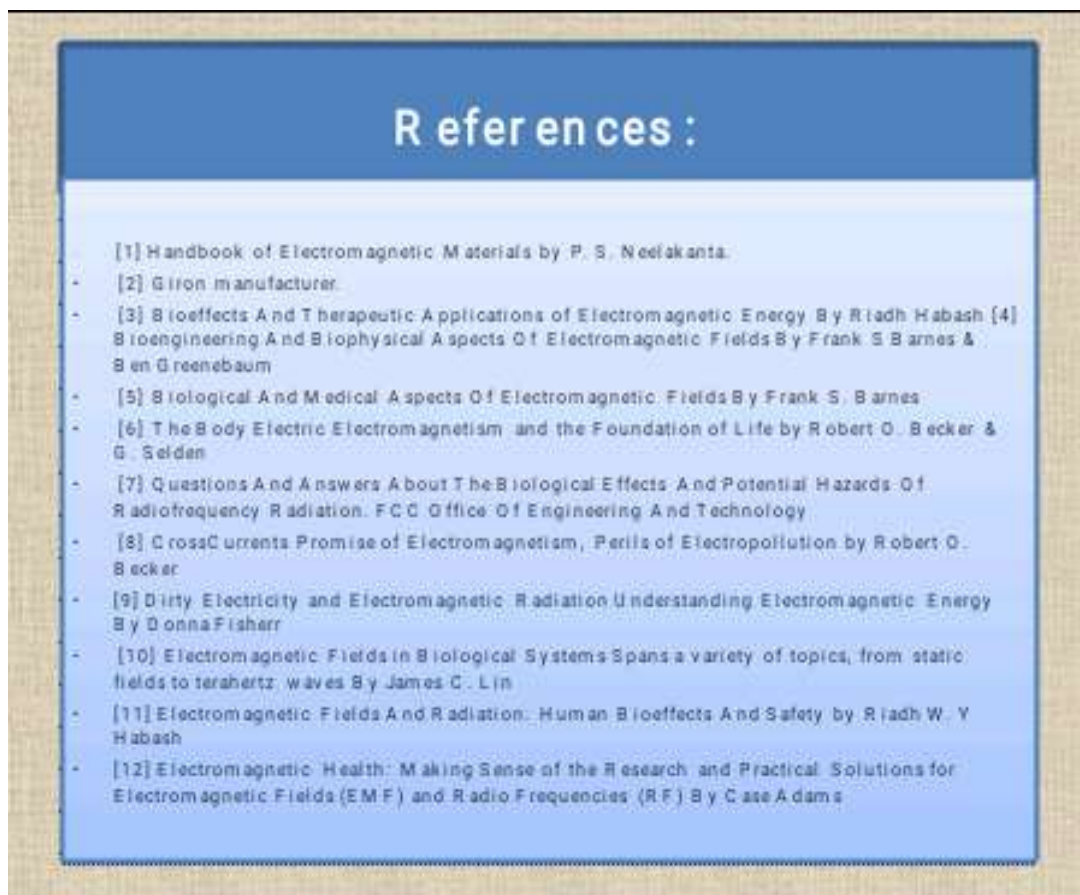


Indoor Plants Help in Absorbing Harmful Radiations

➤ **Conclusions:**

- ❖ Create wide awareness to the public about the ill effects of cell phones.
- ❖ Government has to take initiation and impose ban on the cell phones to take them to public gatherings, schools , colleges and in all educational institutions, temples , hospitals, libraries etc;
- ❖ Install public telephone booths and encourage the public to use them.
- ❖ Strictly instruct that, use wired connections, ban the loud speakers, monitor the usage of mobiles.

➤ **References :**



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DEPARTMENT OF BOTANY

JIGNASA STUDENT STUDY PROJECT 2021

ON

**NATURAL GUMS AND RESIN PLANTS IN NORTHERN TELANANGA
AND THEIR IMPORTANCE**

BY

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**UNDER THE SUPERVISION OF
R.JYOTHIRMAI
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NATURAL GUMS AND RESIN PLANTS OF NORTHERN TELANANGA AND THEIR IMPORTANCE

INTRODUCTION:

Natural gums and resins occupy a prime place among non wood forest produce.(NWFP) . Natural Gums and resins are polysaccharides of natural origin and they are mostly botanical gums found in the woody elements or in seed coatings of plants which are widely used in traditional medicine like Ayurveda; Siddha etc. and used in food industry , Pharma industry, Textile Industry and has importance in Indian culture also.

Globalization and technological developments leads to various health, Psychological, economical or social and environmental problems as a result we are losing the important forest resources. One of them is gum and resin yielding plants. And now a days awareness is increasing among the people about the use of plant-derived medicines which are relatively cheaper and safer, with minimum or no side effects. The traditional medicine has remedies for some ailments for which there is none in the modern medicine. This has lead to the global demand for herbal drugs. Natural gums and resins are important in treating various ailments by tribal people and have importance in traditional medicine.

Traditional medicine is an aged-old method and the WHO is supporting it cause globally. This is also known as ethnomedicine. Tribal people depend upon forest for their daily needs. They also collect gums and resins along with other NWFPs. So there is a need to know how these medicinal and economic plant products like the exudates are used by the local people. So we have chosen this project to study about natural plant gums and resins in northern Telangana and their importance So We have chosen this project to study about natural plant gums and resins in our region .

OBJECTIVES:

1. To know about natural gum and resins yielding plants found in Northern Telangana.
2. To know the usages of gums and resins by tribal people
3. To understand the economic value of gums and resins.
4. To spread awareness about gums and resin yielding plants so that we can conserve them for our future generations

NATURAL GUMS AND RESINS

The natural gums and resins are exudates of plants in the form of tears due to injury or diseases or produced by tapping the bark.

NATURAL GUMS

The gums contain carbohydrates and their derivatives. Gums are water soluble and insoluble in organic solvents (e.g. alcohol) and they form a viscid solution. The gums are formed as a result of disintegration of internal plant tissues mostly from the decomposition of cellulose.

A viscous fluid comes out at the point of injury to seal the wound on the plant body. This process is known as '*gummosis*'. This fluid gets hardened on contact with air, stopping the bleeding of sap on one hand and thereby sealing the entry of pathogens or pests on the other.

In Pharmaceutical industry, gums are used as binding agent in tablets and suspending and emulsifying agent in creams and lotions. They are used in dental and medicinal fields.

Some of the gum-yielding plant families are the Leguminosae, Anacardiaceae, Rutaceae, Combretaceae, Meliaceae and Rosaceae.

RESINS

Resins are insoluble in water but soluble in organic solvents like alcohol, ether. They are oxidation products of various essential Oils. They originate through reduction and polymerization of carbohydrates.

Resins are used in paints, varnishes, incense, soaps, leather finishes, adhesives, sizing, Pharmaceuticals, lithography. Some of Resin-yielding plant families Burseraceae, Leguminosae etc.

Gums and Resins are collected from stem, seed, fruit, root, leaf bud of the plants.

STUDY AREA : Northern Telangana region (Adilabad, Warangal, Niamabad, Karimnagar and Khammam (erstwhile Districts))

MATERIAL AND METHODS:

PLANTS SPECIES IDENTIFICATION The gum and gum-resin yielding plant species from Northern Telangana are enumerated scientifically and taxonomically. herbarium of gum plants The study material is gathering of traditional knowledge of gums and resins and their uses.

The gum plants are identified using the information from local people, literature surveys, and through data bases from books, internet sources.

GUM COLLECTION: The plant gums are collected by the students from the field. The materials used for gum picking are knife, basket, mica paper, forceps, mat, bags . These instruments should not be used for other purposes

North Telangana (Adilabad, Warangal,Nizamabad, Karimnagar and Khammam (erstwhile Districts)

Scientific Method of Gum Tapping:

For Gum tapping a healthy plant having the stem which is above 90 cm diameter at the breast height is to be selected.

The gum picker is making a cut on the stem, the incision size should be 10 to 15 cm only. Only one incision is to be made per stem. Always one has to use a sharp knife to make the wound/cut. When we cut the stem bark one has to see that the inner layer does not get damaged. Otherwise, the plant will die.

Cut the stem of the tree up to 1 mm thickness, like removing the onion peel.

Further, one has to ensure that the gum vessels are not broken.

The Gum picker makes a blaze on the stem of the tree and leaves the tree for 20 to 30 days. After that period, they pick the gum from the stem for 2 to 3 days. There is no need to cut the stem every time. After picking the gum, the impurities are to be removed before drying. The gum is graded according to the colour it possesses, etc.After picking up the gum ,the impurities are to be removed before drying. The gum is graded according to the colour it possess.



PRECAUTIONS:

During the rainy season, The Gum should not be dried near the stove. Gum should not be made into round shapes. Other materials should not be kept along with the gums. Smoking is prohibited where the gum is placed.








Gum tapping on Tellamaddhi







Gum collection by the students

Following is the list of important natural gum and resin plants of northern Telangana

| S. No | NAME | | | DRUG | USE/S | Plant |
|-------|------------------------|--|--------------|-------|---|---|
| | VERNACULAR | BOTANICAL | FAMILY | | | |
| 1 | Nalla thumma | <i>Acacia nilotica</i> ssp. <i>indica</i> | Leguminosae | Gum | 1. Extracted from trunk for sale 2. Diarrhea, dysentary and diabetics. |  |
| 2 | Chikruman/ Thiruman | <i>Anogeissum latifolia</i> | Combretaceae | Gum | 1. Commercial 2. Eaten by Chenchus, Kondareddis and Koyas 3. Used in calico printing |  |
| 3 | Andugu | <i>Boswellia serrata</i> | Burseraceae | Resin | 1. Dog bite: Applied over the bitten area. 2. Child diseases: Incense in home by Koyas 3. Scorpion sting: Applied over the |  |

| | | | | | | |
|---|--------|-------------------------|-------------|-----|--|--|
| | | | | | <p>bitten area by Koyas</p> |  |
| | | | | | 4. Used as incense | |
| | | | | | <p>5. Common Skin Diseases: Resin applied externally on affected areas</p> | |
| | | | | | <p>6. Skin eruptions: Resin applied till cure</p> | |
| 4 | Modugu | <i>Butea monosperma</i> | Leguminosae | Gum | <p>1. Backache: Gum dissolved in a cup of water administered daily once for a week by Koyas</p> |  |
| | | | | | <p>2 Dysentery: Gum administered orally once in a day till cure</p> | |

| | | | | | | |
|---|---|---|------------------------------|-----|--|---|
| 5 | Kondago gu/ Kumbi/S ilk Cotton Tree | <i>Cochlospermum</i> + <i>religiosum</i> | Cochlosperm acae | Gum | 1.Extracted from stem bark by local tribes |  |
| | | | | | 2. Cough and gonorrhoea, syphilis and asthma. Local medicines as a substitute for the Gum karaya | |
| | | | | | 3.Ulcers: Gum used for treatment | |
| 6 | Karaya, Kovie Tapsy/T avisi/ Kovela chettu | <i>Firminia simplex</i> (<i>Sterculia urens</i>) | Malvaceae (Sterculiaceae) | Gum | Gum is commercial; used in cooling, dysentery |  |
| | | | | | 1. Cooling effect: Gum called katira eaten directly | |
| | | | | | 2. Dysentery: G um dissolved in a glass of water drink as febrifuge | |

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | <p>3. Menstrual pains: Gum eaten to be relieved of pains</p> |  <p>alamy</p>  <p>GUM KARAYA</p> <p>STERCULIA UREN</p> |
| | | | | | <p>4. Improving stamina, Suppression in the phenol content in the body: Pinch of gum administered daily once for 40 days by local healers</p> | |
| | | | | | <p>5. Medicine and paste preparations</p> | |
| | | | | | <p>6. Thickening agent in the textile industry</p> | |
| | | | | | <p>7. Pharmaceutical and Medicinal preparations such as lotions, sprays, etc.</p> | |

| | | | | | | |
|--|--|--|--|--|---|--|
| | | | | | 8. Cosmetics, paper industry pulp binder | |
| | | | | | 9. Cordage industry | |
| | | | | | 10. Glue made from proteins of the seeds used as an adhesive in making plywood. | |

Conclusion

Through our study we found plants like Tella thumma, Nalla thumma Narlinga, Dirisena, Kasulu, Thiruman, Tapsychettu(Utnoor), Andugu(Karimnagar Manthani,Choppadandi area,Khammam) Modugu in northern Telangana region.

And these gums and resins used for various purposes by tribal people employed in a wide range of food and pharmaceutical products and in several other applications.

As these have wide range of uses, constitute the source of multi-billion dollar economy to the country. As industries are preferring synthetic gums and resins so nowadays the use natural gums and resins declined. The use of natural gums for pharmaceutical applications is attractive because they are economical, readily available, nontoxic, capable of chemical modifications, potentially biodegradable, and with few exceptions, also biocompatible. So there is a need to enhance usage of natural gums and resins as these are environment friendly. Majority of

investigations on natural polymers in drug delivery systems centre around polysaccharides. Natural gums can also be modified to have tailor-made products for drug delivery systems and thus can compete with the synthetic excipients available in the market. Though the use of traditional gums has continued, newer gums have been used some of them with exceptional qualities. We have to conserve these important forest resources NWFP for the future generations. There is huge scope for research on newer gums and mucilages obtained from plants and could be further exploited in future as a novel natural polymer for development of different drug delivery systems in pharma industry.

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A Project on

TRICKS IN VEDIC MATHEMATICS



JIGNASA – 2021- 2022

SUBMITTED FOR

JIGNASA - STUDENT STUDY PROJECT

BY

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Lecturer in Mathematics

DEPARTMENT OF MATHEMATICS

GOVERNMENT DEGREE COLLEGE FOR WOMEN,

CERTIFICATE

This is to certify that the work entitled “**TRICKS IN VEDIC MATHEMATICS**” is submitted as a part of Jignasa –student study project .This work is carried out by us in the Department of History, Govt. Degree College (W), Karimnagar , under my guidance and supervision .

Date: 16-12-2021

Place: KARIMNAGAR

(V. Radhakishan)

SUPERVISOR

DECLARATION

We declare that the work presented in this project work entitled “**TRICKS IN VEDIC MATHEMATICS**” is an original, entirely collected and researched by us in the Department of history, Govt. Degree College (W), Karimnagar, Telangana, India and has not been submitted either in part or in full for the award of any Degree or Diploma of any Institute/University earlier.

DATE:16.12.2021

PLACE: KARIMNAGAR

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ACKNOWLEDGEMENT

We feel great pleasure to express our deep sense of gratitude to our project supervisor **Mr. V. Radhakishan Lecturer in Mathematics**, GDC (W), Karimnagar, under whose supervision and guidance this work has been carried out. We are thankful to **Dr. T. SREELAKSHMI**, Principal, GDC (W), Karimnagar for extending her kind co-operation and help in presenting this work.

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➤ ***OBJECTIVES***

➤ ***INTRODUCTION***

➤ ***METHOD***

➤ ***PROBLEM DISCRIPTION***

➤ ***CONCLUSION***

Objectives

- 1) *To study the effectiveness of Vedic Mathematics technique for enhancing the performance of the students in solving mathematical calculations like multiplication.*

- 2) *To study the effectiveness of Vedic Mathematics technique for enhancing the time taken by the students in solving problems*

- 3) *To create awareness about the importance of Vedic Mathematics among students.*

INTRODUCTION:

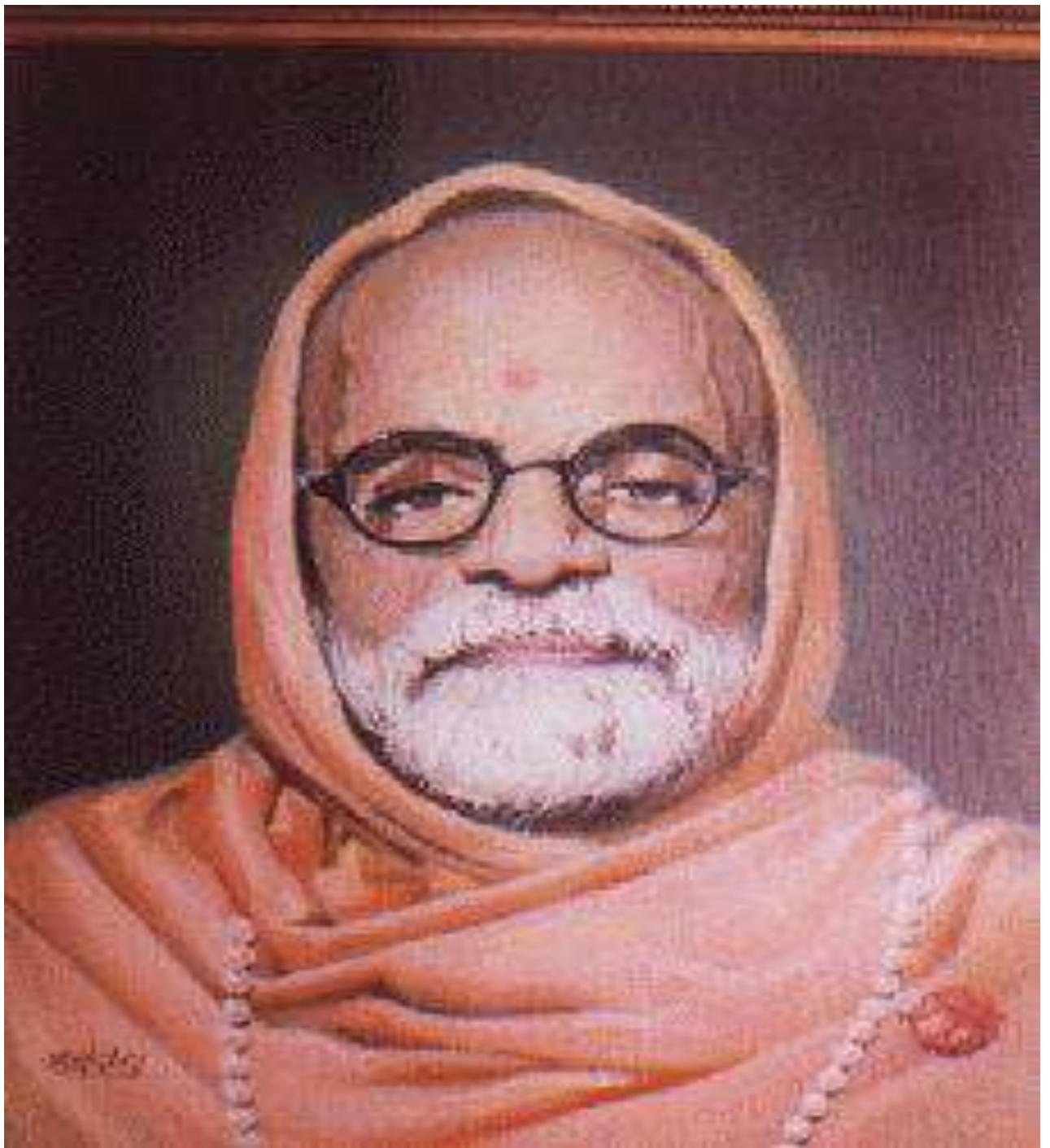
- *Vedic Mathematics is a collection of Techniques/Sutras to solve mathematical arithmetic's in easy and faster way. It consists of 16 Sutras (Formulae) and 13 sub-sutras (Sub Formulae) which can be used for problems involved in arithmetic, algebra, geometry, calculus, conics.*
- *Vedic Mathematics is a system of mathematics which was discovered by Indian mathematician*
- *Using regular mathematical steps, solving problems sometimes Jagadguru Shrissss*

Bharathi Krishna Tirthaji in the period between A.D. 1911 and 1918 and published his findings in a Vedic Mathematics Book by Tirthaji Maharaj

- *Veda is a Sanskrit word which means 'Knowledge'.*
- *are complex and time consuming. But using Vedic Mathematics General Techniques (applicable to all sets of given data) and Specific Techniques (applicable to specific sets of given data), numerical calculations can be done very fast*

History Of Vedic Mathematics

Shri Bharathi Krishna Tirthaji Maharaj was born in March 1884 in the Puri village of Orissa state. He was very good in subjects like mathematics, science, humanities and was excellent in Sanskrit language. His interests were also in spiritualism and mediation. In fact when he was practicing meditation in the forest near Sringeri, he rediscovered the Vedic sutras. He claims that these sutras/techniques he learnt from the Vedas especially 'Rig-Veda' directly or indirectly and he intuitively rediscovered them when he was practicing meditation for 8 years.



Later he wrote the sutras on the manuscripts but were lost. Finally in year 1957, he wrote introductory volume of 16 sutras which is called as Vedic Mathematics and planned to write other sutras later. But soon he developed cataract in both of his eyes and passed away in year 1960.

How Vedic Mathematics is Beneficial and What are the Advantages of Vedic Mathematics

Vedic Mathematics can definitely solve mathematical numerical calculations in faster way. Some Vedic Math Scholars mentioned that Using Vedic Maths tricks you can do calculations 10-15 times faster than our usual methods. I agree this to some extent because

some methods in Vedic Mathematics are really very fast. But some of these methods are dependent on the specific numbers which are to be calculated. They are called specific methods.

Multiplication in Vedic Mathematics

Tirthaji Maharaj has classified tricks to multiply numbers in Vedic Mathematics in Specific and General Methods. Specific Multiplication Methods can be applied when numbers satisfy certain conditions like both numbers closer to 100 or numbers closer to each other or addition of last digits of both numbers is 10, etc. While General Multiplication Methods can be applied to any types of numbers. Depending on Specific and General Techniques,

Multiplication in Vedic Mathematics are classified in the form of Sutras as below. Lets see the Vedic Mathematics Multiplication techniques.

- 1.Nikhilam Sutra (Specific Technique)***
- 2.Anurupyena Sutra (Specific Technique)***
- 3.UrdhvaTiryak Sutra and Vinculum Process (General Technique)***
- 4.EkayunenaPurvena (Specific Technique)***
- 5.Antyaordaske'pi (Specific Technique)***

Nikhilam Sutra:

This is most simplest trick to multiply numbers using Vedic Mathematics. I personally like this method a lot as multiplication can be done in mind as well.

Using Nikhilam Sutra it is simpler to multiply numbers like 98 & 95, 997 & 987, 102 & 112,

995 & 1008 i.e. the numbers which are closer to power of 10. This Sutra is a Specific method of Multiplication in Vedic Mathematics which shows shortcuts to multiply numbers which are closer to power of 10 (10, 100, 1000, etc.)

This will generate 3 cases:

- Numbers closer and less than power of 10.
Example: $97 * 96$, $994 * 992$, etc*
- Numbers closer and greater than power of 10. Example: $102 * 108$, $1004 * 1012$, etc*
- Numbers closer and lying on both sides of power of 10. Example: $102 * 95$, $1004 * 991$, etc*

METHOD

Nikhilam Type 1:

This type of Nikhilam Sutra can be applied when numbers slightly less than power of 10 (10, 100, 1000, etc.).*

Formula used: $(x-a)(x-b) = x(x-a-b) + ab$

Nikhilam Type 2:

Numbers slightly greater than power of 10 (10, 100, 1000, etc.).*

Formula used: $(x+a)(x+b)$

Nikhilam Type 3:

Numbers closer to & present on either side of power of 10 (10, 100, 1000, etc.). This type of Nikhilam will require understanding of 2. Vinculum Process.*

Formulas used:

- $(x+a)(x-b) = x(x+a-b) - ab$
- $(x-a)(x+b) = x(x-a+b) - ab$

Example 1: 99×98

Step 1:

Check the base: Here base is 100 so we are allowed to have two digits on the right hand side.

$\therefore 99 - 01$ (1 less than 100) i.e. 01 deficiency

$98 - 02$ (2 less than 100) i.e. 02 deficiency

Step 2:

Cross - subtract: $99 - 02 = 97 = 98 - 01$ both same so first part of answer is 97

Step 3:

Multiply vertically – $01 \times -02 = 02$ (As base is 100 so two digits are allowed in second part

So, $99 \times 98 = 9702$

Example 2 : 89×88

Step1:

Here base is 100

So, $89 - 11$ (i.e. deficiency = 11)

$88 - 12$ (i.e. deficiency = 12)

Step2:

Cross subtract: $89 - 12 = 77 = 88 - 11$ (both same)

So, first part of answer can be 77

Step 3:

Multiply vertically – 11×-12

Again to multiply 11×12 apply same rule

$$11 + 1 (10 + 1)$$

$$12 + 2 (10 + 2)$$

$$11 + 2 = 13 = 12 + 1 / 1 \times 2 = 12 \text{ so, } 11 \times 12$$

= (1) 32 as only two digits are allowed on right hand

side so add 1 to L.H.S.

$$\text{So, L.H.S.} = 77 + 1 = 78$$

$$\text{Hence } 89 \times 88 = 7832$$

Example 3: 988×999

Step 1: As the numbers are near 1000 so the base here is 1000 and hence three digits allowed on the right hand side

$$988 - 012 \text{ (012 less than 1000) i.e. deficiency} \\ = 012$$

$$999 - 001 \text{ (001 less than 1000) i.e. deficiency} \\ = 001$$

$$\text{Step 2: Cross - subtraction: } 988 - 001 = 987 \\ = 999 - 012 = 987$$

So first part of answer can be 987

$$\text{Step 3: Multiply vertically: } -012 \text{ xs } -001 = \\ 012 \text{ (three digits allowed)}$$

$$\therefore 988 \times 999 = 987012$$

CONCLUSION

One can learn Vedic Mathematics from an early age and basic knowledge of multiplication

Table helps a student to better grasp the subject. When you use Vedic Maths you use both Your left and the right brain hemisphere.

The left side of the brain is the seat of language and Processes in a logical and sequential order. The right side is more visual and processes Intuitively, holistically, and randomly this boosts memory and concentration. Since you are doing calculations mentally without the use of pen or paper you are actually concentrating This develops the concentration abilities.

Thus, Vedic Mathematics is nothing but few 'tricks' that helps in solving mathematical Calculations quite easily. It is a unique technique of calculations that is based on simple principles and rules, applying which, any kind of mathematical problems can be solved Orally

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2021-2022

English Project work

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Kumbam. Anjali kumari

MPCs English medium

Mentor : Smt. A. Meenakshi

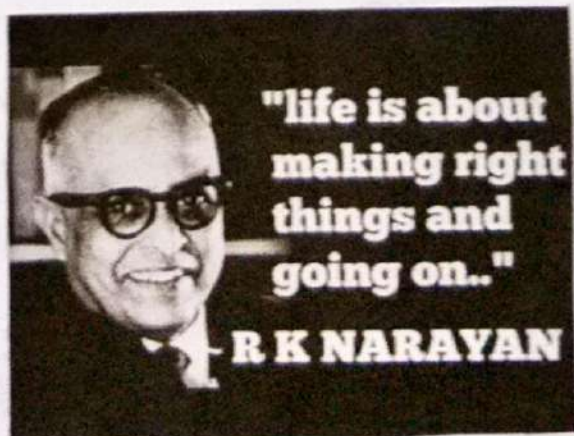
R.K. Narayan

R.K. Narayan (born 1906) is one of the best known of the Indo-English writers. He created the imaginary town of Maigudi, where realistic characters in a typically Indian setting lived amid unpredictable events.

R.K. Narayan



Rasipuram Krishnaswami Narayanswami who preferred the shortened name R.K. Narayan, was born in Madras, India, on Oct. 10, 1906. His father, an educator, travelled frequently, and his mother was frail, so Narayan was raised in Madras by his grandmother and an uncle. His grandmother inspired in young Narayan a passion for language and for people. He attended for the Christian Mission School, where, he said, he learned to love the Hindu gods simply because the Christian Chaplain ridiculed them. Narayan graduated from Maharaja's College in Mysore in 1930. In 1931 he was married, but his wife, Rajam, died of typhoid in 1939. He had one daughter, Hemalata. He never remarried.



Creating a small - town world

Narayan wrote his first novel, *Swami and Friends*, in 1935, after short, uninspiring stints as a teacher, an editorial assistant and a newspaperman. In it, he invented the small south Indian city of Malgudi, a literary microcosm that critics later compared to William Faulkner's Yoknapatawpha County. More than a dozen novels and many short stories that followed were set in Malgudi.

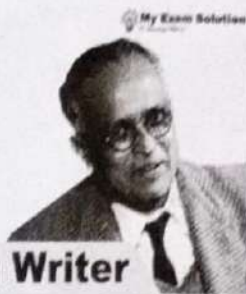
Narayan's second novel, *Bachelor of Arts* (1939), marked the beginning of his reputation in England, where the novelist Graham Greene was largely responsible for getting it published. Greene has called Narayan "the novelist I most admire in the English language." His fourth novel,



R. K. Narayan

LIFE, WORKS AND CAREER
SWAMI AND FRIENDS,
THE BACHELOR OF ARTS

Indian English Writer



The English Teacher, published in 1945 was partly autobiographical concerning a teacher's struggle to cope with the death of his wife. In 1953, Michigan State University published it under the title *Grateful to life and death*, along with his novel *The Financial Expert*; they were Narayan's first books published in the United States.

Subsequent publications of his novels, especially *Mr. Sampath*, *Waiting for the Mahatma*, *The Guide*, *The Man-eater of Malgudi*

and The Vendor of Sweets established Narayan's reputation in the west. Many critics consider The Guide (1958) to be Narayan's masterpiece. Told in a complex series of flashbacks, it concerns a tourist guide who seduces the wife of a spent prospector, and ends up in jail. The novel won India's highest literary honor, and it was adapted for the off-Broadway stage in 1968.



At least two of Narayan's novels, Mr. Sampath (1949) and The Guide (1958), were adapted for the movies. Narayan usually wrote for an hour or two a day, composing fast, often writing as many as 2,000 words and seldom correcting or rewriting.

Making the Mundane Extraordinary.

Narayan's stories begin with realistic settings and everyday happenings in the lives of a cross-section of Indian society, with characters of all classes. Gradually fate or chance, oversight or blunder, transforms mundane events to preposterous happenings. Unexpected disasters befall the hero as easily as unforeseen good fortune. The characters accept their fates with an equanimity that suggests the faith that things will somehow turn out happily, whatever their own motivations or actions.

PREPARATION OF CUPRAMMONIUM RAYON THREADS

Sem Iii

1.S.Chandrakala

2.Sumayyafathima

3.M.Shivani

4.B.Anush

5.Swathi

INTRODUCTION

- Rayon is a synthetic fiber produced from cellulose. Developed in an attempt to produce silk chemically, it was originally called artificial silk or wood silk. Rayon is a regenerated fiber, because cellulose is converted to a liquid compound and then back to cellulose in the form of fiber.
- For example, cuprammonium rayon is made by dissolving cellulose in an ammoniacal copper sulphate solution.

OBJECTIVE

- PREPARATION OF CUPRAMMONIUM SILK THREADS FROM FILTER PAPER,
- TO CHECK THE FOLLOWING CHARACTERISTICS OF RAYON FIBERS:
- HIGHLY ABSORBENT
- SOFT AND COMFORTABLE
- EASY TO DYE &
- DRAPE WELL

METHODOLOGY

- **PRINCIPLE**
- Cuprammonium rayon is obtained by dissolving pieces of filter paper or cotton seeds fibre in a deep blue solution containing tetra-ammine cupric hydroxide.
- The latter is obtained from a solution of copper sulphate added to NH_4OH solution. First the precipitate cupric hydroxide is formed and dissolved in excess of Ammonia solution.

REACTIONS

- $\text{CuSO}_4 + 2\text{NH}_4\text{OH} \rightarrow \text{Cu}(\text{OH})_2 + (\text{NH}_4)_2\text{SO}_4$
- Pale blue ppt
- $\text{Cu}(\text{OH})_2 + 4\text{NH}_4\text{OH} \rightarrow [\text{Cu}(\text{NH}_3)_4](\text{OH})_2 + 4\text{H}_2\text{O}$
- $[\text{Cu}(\text{NH}_3)_4](\text{OH})_2$ + pieces of filter paper left for 10-15 days give a viscous solution called VISCOSE

Preparation of Schweitzer's Solution

- a) Weigh 20g of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$.
- b) Transfer this to a beaker having 100ml distilled water and add 15ml of dilute H_2SO_4 to prevent hydrolysis of CuSO_4 .
- c) Stir it with a glass rod till a clear solution is obtained. Add 11ml of liquor ammonia drop by drop with slow stirring. The precipitate of cupric hydroxide is separated out.
- d) Filter the solution containing cupric hydroxide through a funnel with filter paper.

- e) Wash the precipitate of cupric hydroxide with water until the filtrate fails to give a positive test for sulphate ions with barium chloride solution.
- f) Transfer the precipitate to a beaker that contains 50ml of liquor ammonia or wash it down the funnel. The precipitate when dissolved in liquor ammonia gives a deep blue solution of tetra-ammine cupric hydroxide. This is known as SCHWEITZER'S SOLUTION.

Preparation of Cellulose material

- a) After weighing 2g of filter paper divide it into very fine pieces and then transfer these pieces to the tetra-ammine cupric hydroxide solution in the beaker.
- b) Seal the flask and keep for 10 to 15 days, during this period the filter paper is dissolved completely. Then cellulose is obtained.

Formation of Rayon Thread

- a) Take 50ml of distilled water in a glass container. To this add 20ml of conc H_2SO_4 drop by drop. Cool the solution under tap water. In a big glass container pour some of the solution.
- b) Fill the syringe with cellulose solution prepared before.
- c) Place the big glass container containing H_2SO_4 solution produced before in ice (the reaction being spontaneous results in excess release of energy in the form of heat which makes the fibers weak and breaks them).

- d) Immerse the tip of the syringe in the solution and press gently. Notice the fibers getting formed in the acid bath. Continue to move your hand and keep pressing the syringe to extrude more fibers into the bath.
- e) Leave the fibers in solution till they decolorize and become strong enough.
- f) Filter and wash with distilled water.

Conclusion

- a) Addition of excess NH_3 Solution should be avoided.
- b) Before taking the viscose in the syringe make sure that it does not contain any particles of paper, otherwise, it would clog the needle of the syringe.

- c) Addition of NH_3 should be done in a fume cupboard and with extreme care. The fumes if inhaled may cause giddiness.
- d) Use a thick needle otherwise the fibers won't come out

GOVT DEGREE COLLEGE FOR WOMEN
KARIMNAGER
DEPT OF ECONOMICS
BA U/M I YEAR
PROJECT WORK
TOPIC;. UN EMPLOYMENT

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GUIDED BY;

IRFANA BEGUM

بے روزگاری اور Unemployment

بے روزگاری اور نیم بے روزگاری ہے

بندوستانی معیشت کی ایک اور

اہم خصوصیت ہے روزگاری اور نیم بے روزگاری ہے۔ بندوستان میں انسانی محنت کے وسائل بے حساب ہیں، لیبروں کی کمی نہیں ہے۔ تاہم قابل کار روزگاری اور ترقی ہوئی ہیں۔ تاہم قابل کار افراد کو روزگار فراہم کرنا مشکل ہے۔



ایک اندازہ کے مطابق سال 2000ء تا 1999ء میں بے روزگاری اور ترقی ہوئی بے روزگاری کی افراطی تعداد تقریباً 106 ملین تھی۔ بندوستان میں بے روزگاری کے مسئلہ نیم بے روزگاری بھی پائی جاتی ہے۔ بندوستان میں جو سیکور گارڈ ہے وہ ترقی یافتہ ممالک کی بے روزگاری کے مقابلے میں ہے۔ ترقی یافتہ ممالک سے بے روزگاری لکشی (Cyclical) نوعیت کی ہے۔ جب کہ بندوستان میں بے روزگاری ساختی ہے۔ جو اصل میں 'Technology' کا استعمال اور محنت لکشی کی بڑھتی ہوئی تعداد اور

قومی ریفورمز مارپیروگرام :-

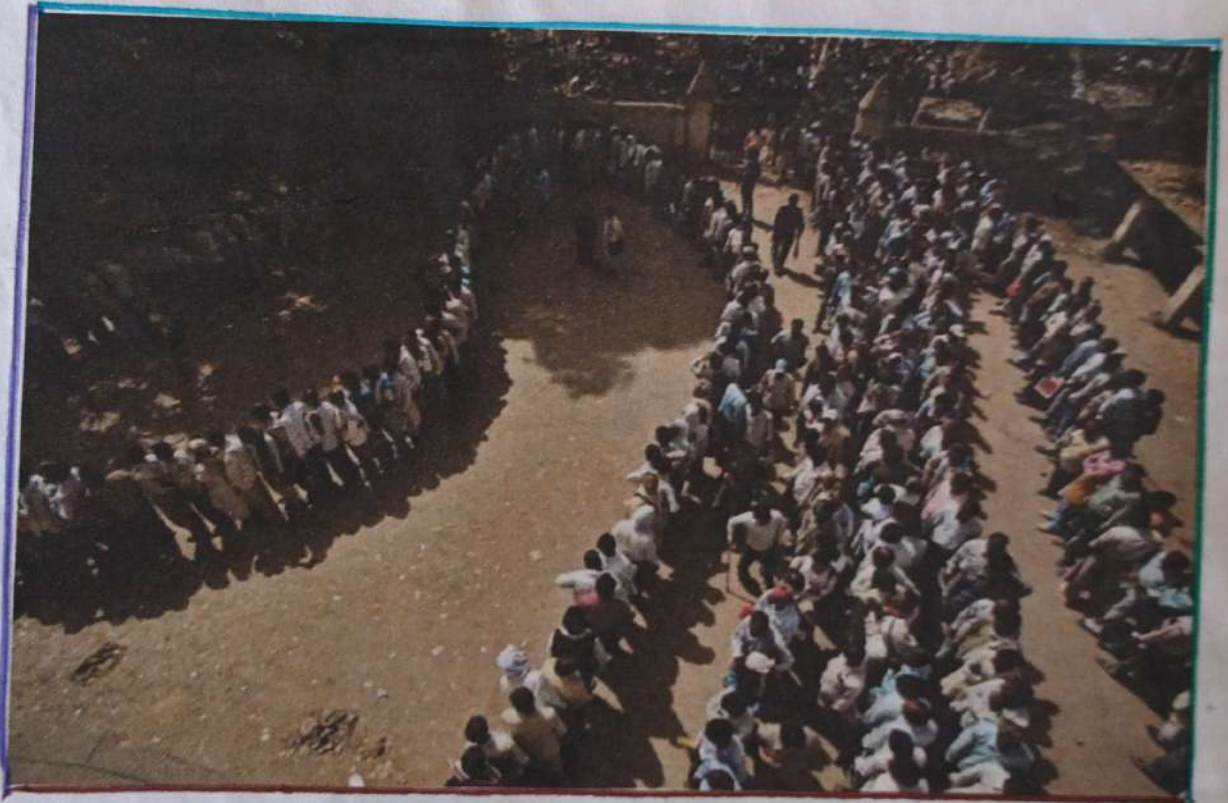
Nation Rural Employment Programme NREP

یہ پروگرام سال 1980 میں شروع کیا گیا۔ اس پروگرام کا مقصد دیہی علاقوں میں انفراسٹرکچر کی تعمیراتی کاموں کو شروع کرنا تھا۔

(Infrastructure) کی تعمیرات۔

تعمیراتی کاموں کو شروع کرنا تاکہ دیہی علاقوں میں روز

گار موقعتوں میں اضافہ ہو۔



Training Rural Youth for Self employment
TRYSEM

ٹوڈر پروگرام کے سب سے اہم اجزاء کی ترتیب :-

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.

اس پروگرام کے ذریعہ ہر سال 2 لاکھ دیہی افراد کو ٹوڈر پروگرام کے

تحتویات میں شامل کیا گیا ہے تاکہ وہ اپنے سببوں پر ٹھیکہ کر سکیں۔

◦ Nahro Rozgar Yojana ◦



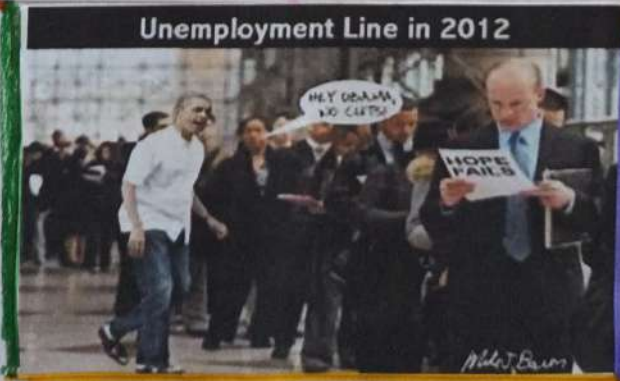
نیرو روزگار یोजना

بشری علاقوں میں بے روزگار افراد کو روزگار کی فراہمی -

کے لئے یہ اسکیم رو بہ عمل لائی جا رہی ہے -



Unemployment Line in 2012



لبن و تالی معاش کی ایک اور اہم خصوصیات ہے روزگار اور نسیم بے روزگاروں کے لئے ہے۔
 لبن و تالی معاش کے مسائل بے حساب ہیں۔ لیبروں کی کمی نہیں ہے۔



* Sampurna Gramaena Rozgar Yojana *

سچیدرن کارامینار فرکار یوجناہ

کلی - ۲۰۰۰ میں اہلیم کا مقصد غذائی ظمانین کے ساتھ ساتھ روزانہ روزگار فراہم کرنا ہے۔
 Sampurna Gramaena Rozgar Yojana ستمبر 2001ء میں شروع ہوئی



سوزنا جنیتی کار فرما یوجناہ

دہلی علاقوں میں بے روزگاری کو دور کرنے کے لئے حکومت
 اپریل 1999ء میں اہلیم کو شروع کی ہے۔ اس اہلیم کا مقصد مجموعی
 دہلی کے فروغ کے ذریعہ کو غریب افراد کو فوری طور پر خط سے اونچا
 اٹانے کے لئے ہے۔ اس اہلیم کے تحت (help کا اعی) گروپ تشکیل دیتے جاتے ہیں

بے روزگاری ہے

روزگار ہی کسے ہے کارآمدی اسٹیٹ مندرجہ ذیل کی تکمیل کے لئے
 جو ریٹریکٹی میراٹر آؤٹ میں۔ بے کاری کے سبب جو ریٹریکٹی الٹا مارا روزگار
 معقول بن جاتی ہیں۔ اور معاشی حوالہ میں افسانہ سوچ سکتے ہیں۔ بے روزگاروں کی
 وجہ سے لوگوں کو غیر غلام دھندوں کو اختیار کرنے پر مجبور رہتے ہیں۔ جبلی
 وجہ سے سماج کی ہر اہم ضلع ملکر رہتی ہیں۔



ہندوستان میں دولت اور آمدنی کی تقسیم صلاہی اور منصفانہ نہیں ہے (R.B.I.)
 اور CAER کی محققان سے منہ چلتا ہے کہ ہمارے ملک میں دولت اور
 آمدنی کی تقسیم میں نابرابری اور عدم مساوات (اڈر انی) ہیں۔



Pradhan Mantri Gramodaya Yojana :-



پراجہان منتری گرامودے یوجنا

پراجہان منتری گرامودے یوجنا سال (2000-01) میں

تیار راستوں اور مرکزی زیر انتظام علاقوں میں پختہ سطح پر کی گئی ہیں۔ اس یوجنا

کامقصد دیہی علاقوں میں بنیادی فراسٹرکچر جیسے کہ الیکٹریسیٹی، تعلیم، سڑکیں

کا پانی، برقی بجلی وغیرہ کی فراہمی ہے۔



اصبر ہے کہ مشورہ بالا ایلیمنٹ اور پراجہان منتری گرامودے کی موثر عمل آوری

سے بیروزگاری سے ختم ہونے میں مدد ملے گی۔

بے روزگاری سے اسباب

عشر بیسی کی طرح بے روزگاری بھی بدوستان کا ایک سنگین مسئلہ ہے۔ بدوستان میں بے روزگاری کی نوعیت ترقی یافتہ ممالک کی بے روزگاری سے مختلف ہے۔ ترقی یافتہ ممالک سے بے روزگاری کو شرط طلب کی کمی کا نتیجہ ہے۔ جبکہ بدوستان میں ترقی پزیر ممالک میں بے روزگاری کی نوعیت ساختی (Structural) ہے۔ جو اصل اور گہرے پیداواری وسائل کی حالت کا نتیجہ ہے۔



بے روزگاری سے حسب ذیل اسباب ہیں۔

- 1:- آبادی میں اضافہ ہے۔ آبادی میں تیزی سے اضافہ ہوا ہے جس کی وجہ سے ہر سال تقریباً 4 ملین افراد بے روزگاروں میں شامل ہو رہے ہیں
- 2:- نا کافی معاشی ترقی ہے۔ ملک میں معاشی ترقی کی شرح اور رفتار نا کافی ہیں معاشی ترقی کی گہرائی کی وجہ سے لوگوں کی بڑھتی ہوئی تعداد کو روزگار کی ترسیل میں مشکل ہیں۔

- Reduce Unemployment in India: -

بے روزگاری کے اقدامات

بے روزگاری کے دورانیے سے حکومت کے چاہنے والوں سے متعلقہ اداروں کے لئے
 ایسے حسب ذیل اسکیمات اور پروگرام حکومت کو بحال کر رہی ہے۔



1۔ رورل ورک پروگرام - Rural Work Programme

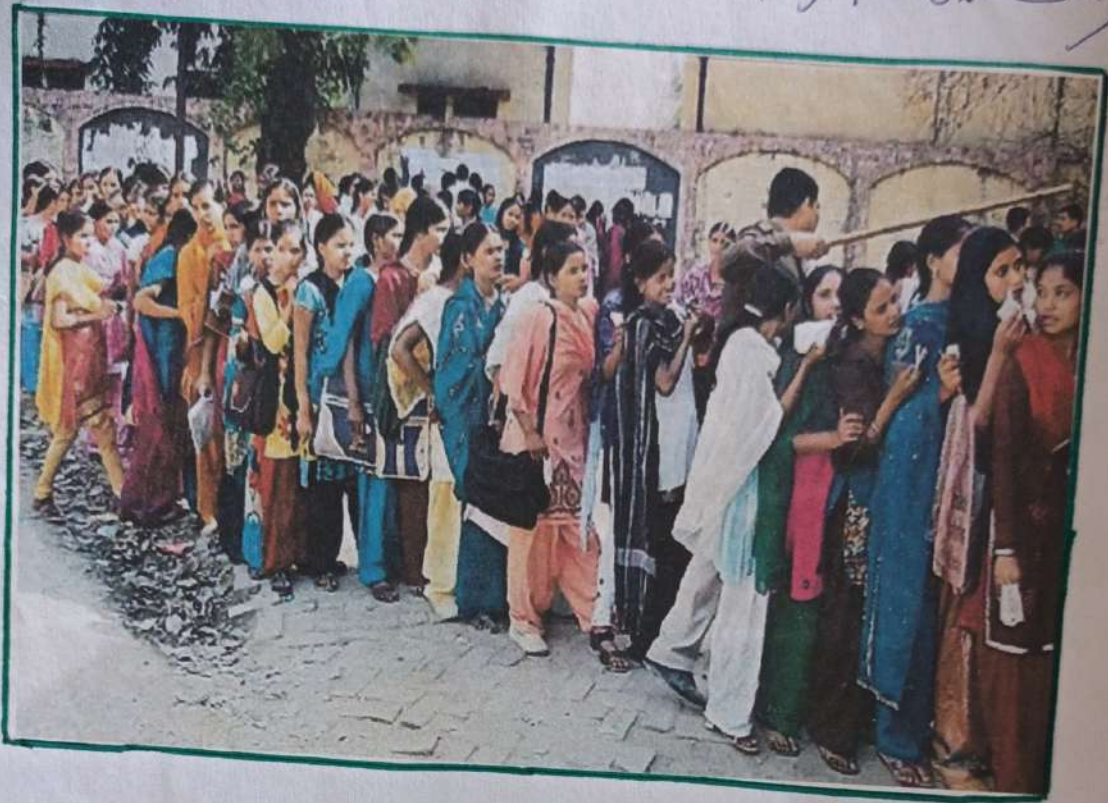
کے علاقوں میں گاؤں کے سطح پر پروگرام شروع کیا گیا ہے۔

2۔ اگرو سروس سنٹرس - (Agro Service Center)

اگرو سروس سنٹرس اسکیم کے تحت (Graduate) گریجویٹ اور
 (Diploma) ڈیپلوما رکھنے والے بے روزگاروں کو ورک شاپ، بیس
 لائونگی، مشین کاری اور دیگر سے مدد دی جاتی ہے۔



3:- پیمانہ زراعت - زراعت جدید پیمانہ ہے۔ یہی علاقوں میں پیمانہ زراعت کی وجہ سے ہے۔
 دو گونہ زراعت میں کام افزائی نہیں کرتے ہیں۔



4:- اصل قیمت و تکنالوجی - اصل قیمتوں میں جدید تکنالوجی اور اصل قیمتوں کے ساتھ ساتھ Capital Intensive Technology اور اصل قیمتوں کی جارہی ہیں جس کی وجہ سے روزگار بڑھ رہی ہے۔



5:- چھوٹی صنعتوں کا زوال - ایک زمانے میں چھوٹی صنعتوں کو فروغ دیا گیا اور روزگار بڑھا رہا تھا، لیکن آج کل (Factory System) کے بحران اور بڑی صنعتوں میں قائم کرنے سے بڑھ رہی ہیں۔

بے روزگاری کے نتائج

Consequences of Unemployment

بندہستان میں بے روزگاری کے مسئلے سے عام ہے۔ بے روزگاری سے صدمہ و صدموں کا حال ہے جس میں قابل کامزاد کو کام کی خواہش ہے مگر کام نہیں ملتا۔ اور ضرر اذری طرح بے روزگاری بھی ایک سنگین مسئلہ ہے۔ اور اس کے نتائج اور اثرات بھی ساج اور مصیبت پر مشتمل ثابت ہوئے ہیں۔



بے روزگاری سے جمہوریت کو بھی خطرہ لاحق ہو سکتا ہے۔ بے روزگاری سے ساج اور مصیبت پر بار بڑھتا ہے۔ بے روزگاری کا وجہ سے سبب اور وسائل بھر لو راستہ حال نہیں ہو پا سکتا اور اس کے مسائل بے کار اور ضائع جاتے ہیں۔ بے روزگاری کی وجہ سے سماج میں امن و امان کی برقراری بھی مشکل ہے۔ بے کار آدمی کا ذہن اور جانگ شیطانی کامیاب گناہ سے بھری ہے۔ بے روزگاری سے سماج میں انتشار اور فساد پیدا ہو سکتا ہے۔

A Study Project
On
Scientists and their Discoveries

By
S Ramya and M Mamatha
MPC E/M V-Sem

Supervisor

Dr.M.Prashanthi

Department of Chemistry
Government Degree College for Women
Karimnagar

Marie Curie



Mari Curie

- * Marie Curie born on 7 November 1867 at Warsaw Poland.
- * Marie Curie was a Polish and naturalized French physicist and chemist who conducted pioneering research on radioactivity.
- * Marie Curie became the first woman to be awarded the Nobel Prize on December 1903.
- * She was awarded the Nobel Prize in Physics "in recognition of the extraordinary services they have rendered by their joint researches on the radiation phenomena discovered by Professor Henri Becquerel.
- * Marie was awarded a second Nobel Prize this time for chemistry "in recognition of her services to the advancement of chemistry by the discovery of the elements radium and polonium, by the isolation of radium and the study of the nature and compounds of this remarkable element.
- * She created history by becoming the first person to win two Nobel Prizes.
- * Marie took over his teaching post at the Sorbonne, becoming the institution's first female Professor.
- * Marie Curie proved that atoms were divisible.
- * The Curies coined the word radioactivity.
- * She was died on 4 July 1937 at Sancellemoz.

Alfred Nobel



ALFRED NOBEL

Alfred Nobel

- * Alfred Nobel was born on October 21, 1833 in Stockholm, Sweden.
- * His father Immanuel Nobel was a skilled engineer and inventor.
- * Alfred Nobel was a Swedish Chemist and innovator who made a large fortune mostly through his invention of dynamite and other type of explosives.
- * He was very interested in the study of explosives.
- * He earned a lot of money through his invention of Gelnite.
- * Alfred Nobel held 350 patents and established 90 armaments factories.
- * Alfred established the Nobel prizes through his will.
- * The synthetic element Nobelium is named after him.
- * The first Nobel prizes were awarded in 1901, 5 years after his death.
- * Alfred Nobel was called the Merchant of Death.
- * Alfred Nobel died of a stroke on December 10, 1896 in San Remo Italy.

John Dalton



John Dalton

- * John Dalton was born on 6 September 1766 at the settlement of Eaglesfield in the country of Cumberland in England.
- * Dalton served as president of the Manchester literary and philosophical society.
- * In 1826, Dalton was awarded the society's Royal Medal for his Atomic theory.
- * John Dalton was a British Scientist most famous for his contribution to the atomic theory which laid the foundation of modern chemistry.
- * He was called the father of Meteorology by English scientist John Frederic Daniell.
- * Dalton used the term atom for his atomic theory which he developed after performing numerous experiments.
- * In 1793, Dalton's Meteorological observations and Essays became his first published work.
- * On 3 October 1794, Dalton was elected a member of Manchester literary and philosophical society.
- * John Dalton was the first to publish a scientific paper on colour blindness.
- * John Dalton died on 27 July, 1844 in Manchester.

Avogadro



Amedeo Avogadro

- * Amedeo Avogadro was born in Turin Italy on August 9th 1776.
- * Amedeo Avogadro is best known for his hypothesis that equal volumes of different gases contain an equal number of molecules, provided they are at the same temperature and pressure.
- * His father, Filippo, was a magistrate and his mother was noblewoman, Anna Verzellone of Biella.
- * In 1798, he was awarded a doctorate in canon law and began to practice as an ecclesiastical lawyer.
- * In 1811 Avogadro published a paper in Journal de Physique, the French Journal of Physics.
- * In 1820 Avogadro became professor of mathematical physics at the University of Turin.
- * Avogadro's constant is one of the most important numbers in chemistry.



Antoine Laurent Lavoisier

Lavoisier

Lavoisier was born on 1743

He was a french chemist who is most famous for changing chemistry from a qualitative to a quantitative science and for discovering the role of oxygen in combustion.

He is renowned as the "Father of modern Chemistry".

He wrote the first Modern text book on chemistry (Elementary Treatise of Chemistry).

He established law of conservation of mass in chemistry and Co-authoring the first modern system of chemical nomenclature.

Lavoisier made many other important contributions to the field of chemistry which include establishing water as a compound of hydrogen and oxygen.

Discovering that sulfur is an element and that diamond is a form of carbon.

Lavoisier had a huge influence on the history of chemistry.

In 1778, Lavoisier found that when mercury oxide is heated its weight decreases and the oxygen released has the same weight as the weight lost by mercury oxide.

He was died in the year 1794.

Robert Boyle



Robert Boyle

- * Robert Boyle was born on 25 January 1627 in Bismore Castle, County Waterford Ireland.
- * His father Richard Boyle was the 1st Earl of Cork, Lord Treasurer of the Kingdom of Ireland, among the wealthiest men in Britain and has been described as the first colonial millionaire.
- * He discovered several characteristics of air.
- * Robert Boyle is called the founder of Modern Chemistry.
- * In 1661, Robert Boyle published probably his most important work. The Sceptical Chymist.
- * He improved upon Guericke's Air pump.
- * Robert Boyle was not the first one to note Boyle's law.
- * Robert Boyle was an Anglo-Irish scientist who is famous of Boyle's law.

Humphry Davy



Humphry Davy

- * Humphry Davy was born on 17 December 1778.
- * He was a Cornish chemist and inventor, who is the best remembered today for isolating, using electricity, a series of elements for the first time: Potassium and Sodium in 1807.
- * Davy also studied the forces involved in these separations, inventing the new field of electrochemistry.
- * He discovered the elemental nature of chlorine and Iodine.
- * Davy published his Elements of Chemical Philosophy, part 1, volume 1 though other parts of the title.
- * In November 1804 Davy became a Fellow of the Royal Society, over which he would later preside.
- * Davy was awarded the Copley Medal (1805), Prix du Galvanisme (1807), Rumford Medal (1816) and Royal Medal (1827).
- * He was died on 29 May 1829 at Geneva, Switzerland.

J.SWAPNA
M.Com., B.Ed
Lecturer in Commerce



DEPARTMENT OF
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GOVT. DEGREE COLLEGE
FOR WOMEN, KARIMNAGAR
TELANGANA

CERTIFICATE

This is to certify that the "A STUDY ON RATIO ANALYSIS WITH REFERENCE TO MEGHANA FOODS, KARIMNAGAR" has been carried out by

M.LIKHITHA -19077164402102
B.ABHIGNA -19077164402027
E.ASHWINI -19077164402034
S. ALEKHYA -19077164402148
G. SHRUTHI -19077164402050

Students of B.Com (CA) Department of Commerce, Govt Degree College for Women, Karimnagar, under my supervision. It is a bonafide work done by them and has not been submitted elsewhere for the award of any Degree or Diploma.

This study project is of the standard expected and I recommend that it may be sent for evaluation

Date:

J. SWAPNA

Place:

Study Project Supervisor

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RATIO ANALYSIS

Ratio is expression of the quantitative relationship that exists between the numbers. In simple language ratio is one number expressed in terms of another and it work out by dividing one number by the other. It shows the relationship between two figures.

Ratio analysis is a widely used tool of financial analysis. It is defined as the systematic use of ratios to interpret the financial statements so that the strengths and weakness of firm as well as its historical performance and current condition can be determined. The relationship between two or more accounting figures/groups is called financial ratios. A financial ratio helps to summarize a large mass of financial date into a concise firm and to make meaningful interpretation and conclusion about the performance of the firm.

A ratio may be expressed either in proportion or as rate or as percentage. A ratio may make the form of proportion. Here the figures of the two items used for computing the ratio or expressed in common denominator. Example is current ratio 5:3, acid test ratio 1:3:1 etc.

NEED AND IMPORTANCE OF THE STUDY

The project work is done for analyzing the financial position of Mayur Bread. The analysis of the financial position gives a better picture of the financial position of the organization in order to take better decisions. Ratio analysis guides the board and the management to pursue objectives that are in the interest of the company.

The study is also beneficial to employees and offers motivation by sharing how they are contributing for the company's growth. This study is also beneficial to top management of the company by providing relevant information regarding important aspects like liquidity, leverage, activity and profitability.

OBJECTIVES OF THE STUDY

1. To know the importance of ratio's financial analysis propection.
2. To evaluate the performance of the Mayur Bread over the last five years.
3. To know the various financial ratios influence on company value.
4. To compare with standard to action ratio.
5. To draw conclusions and to suggest suitable measures to overcome problems, if any to improve its performance.

SCOPE OF THE STUDY

The present study will reveal the financial performance of the company covering purely financial data supplied by the company's financial statements through ratio analysis. The Ratio analysis is an analyzed financial data along with interpretation. It includes the analysis of the financial position through ratios of Mayur Bread only.

RESEARCH METHODOLOGY

Sources of data

Methodology is a systematic procedure of collecting information in order to analyze and verify a phenomenon. The collection of data is done through two principle sources viz.,

- 1) Primary data
- 2) Secondary data

1) Primary data

It is the information collected directly without any reference. In the study, it mainly interviews the concerned officers and staff either individually or collectively. For the present analysis, primary data is not used.

2) Secondary data

The Secondary data was collected from already published sources such as annual reports of Company, internal records, references from text books and journals relating to financial management.

TOOLS FOR DATA COLLECTION

Annual reports of Mayur Bread are the tool used for collection of data for analyzing the Financial position.

SAMPLING DESIGN Sample size

To study the ratio analysis of the Mayur Bread the study chosen five years period from 2014 to 2018 as sample of study.

TOOLS AND TECHNIQUES USED FOR DATA ANALYSIS

In the report, the financial conduction of the company in all five years of the study period was analyzed and presented in the form of statements and tables, accompanied by respective interpretations.

LIMITATIONS OF THE STUDY

1. The study undertaken of the Mayur Bread includes only ratios as a technique of analysis.
2. This may not reflect the whole financial position of the company.
3. The conclusions drawn from the annual figures provided by the company which may not give accurate financial position.
4. The samples i.e., financial statements are known only for a limited period, i.e. five years.
5. While calculating the percentages, approximations are more to the nearest figures. They may not give true pictures of the study.
6. The performance shown in the project is limited to the data provided by the company. Hence, it is limited to the information provided by them.

COMPANY PROFILE

'Kapil Group' is a conglomerate of over thirty companies managed or owned by Mr. K. Vaman Rao, a Chartered Accountant, his family members and associates of the group companies. The first company started its business in the year 1981. The group is involved in over 24 different types of business activities through over 250 offices, having generated employment to over 12,500 persons and has an annual turnover including chit auction turnover exceeding Rs 2,500 crores as in March 2013.

The group is involved in Chit Funds (Asset Management), Development of lay-out for residential / commercial buildings, Construction, Hotels and serviced apartment, Finance (NBFC), Information technology, Television (news channel), Newspaper, Bakery (factories), Manufacture of PP / HM bags, Printing press, Corporate Insurance Agency, Health and wellness therapy centers, Ayurvedic hospital, Cancer hospital (non-profit), Horticulture, Cultivation of vegetables, Dairy, Poultry, Sheep / goat rearing, Telecom infrastructure services, Travel agency, Overseas money transfer agents and Distribution of home / office appliances, health products etc.,

The group serves society through a non-profit 100 bedded cancer hospital set-up in a remote rural area and supports over 350 students to pursue higher education.

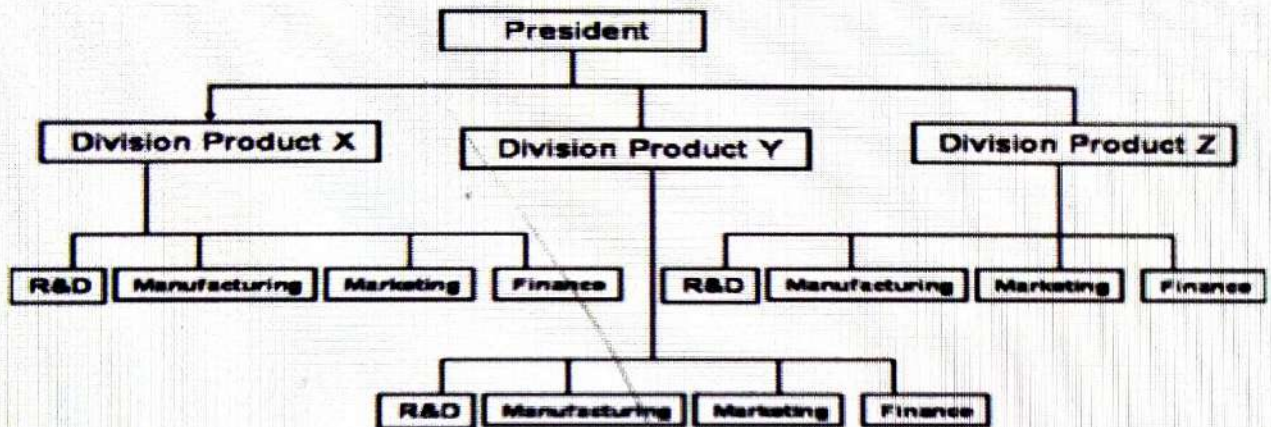
A BRIEF OVERVIEW

To multiply small successes is precisely to build one treasure after another. In time one becomes rich without realizing how it has come about

- Frederick the great (1712-1886).

As a start up in 1981, none of the members who joined together to form Kapil Chit Funds Pvt Ltd could have imagined that the company would grow to be a conglomerate it is today. Our most significant imprint has been in the service sector - offering financial service to our customers through chits, insurance products and loans. We have exposure to the manufacturing sector with our bread manufacturing units and plastic factory.

ORGANIZATION STRUCTURE



Companies in Kapil group

1. Chit Funds
2. Real estate - Layouts
3. Construction
4. Hospitality
5. Information Technology
6. Electronic and Print Media
7. Financial Products
8. Bread (Bakery) Manufacturing
9. Plastics
10. Horticulture, Dairy and Poultry
11. Distribution
12. Health Care
13. Travel

MAYUR BREAD

Kapil group started manufacture of bread and other bakery products in 1987 to serve the needs of rural areas in the districts of Karimnagar, Nizamabad, Adilabad, Warangal, Khammam, Nalgonda, Krishna, Guntur and West Godavari in Andhra Pradesh.. The company initially had a tie up with the "SPENSERS" brand for know-how and technology. Subsequently, in 1988 another factory was set up to manufacture bread, cakes etc under the "MAYUR" BRAND NAME. At present over 1,00,000 loaves are sold, each day under the brand name MAYUR.

RATIO ANALYSIS

Ratio analysis is a widely used tool of financial analysis. It can be used to compare the risk and return relationship of the firms of different sizes. It is defined as the systematic use of ratios to interpret the financial statements so that the strengths and weaknesses of a firm as well as its historical performance and current financial condition can be determined.

"The relationship of one item to another expressed in simple mathematical form is known as ratio."

MANAGERIAL USES OF RATIO ANALYSIS

- Ratio analysis helps in decision making from the information provided in the financial statements.
- Ratios enable the financial analyst to summarize and simplify the voluminous financial data.
- Ratios are helpful in identifying the problem areas of firm. This will make the management to make necessary corrective measures to improve the results in future.
- Ratio analysis helps to formulate policies for future including the capital expense decisions.
- Ratio analysis is an important tool for both minimizing costs and maximizing revenues and profits.
- Accounting ratios help to measure the profitability of the business by calculating the various profitability ratios. It helps the management to know about the earning capacity of the business concern. In this way, profitability ratios show the actual performance of the business.

LIMITATIONS OF RATIO ANALYSIS

In spite of many advantages, there are certain limitations of the ratio analysis techniques and they should be kept in mind while using them in interpreting financial statements. The following are the main limitations of accounting ratios.

1. Limited Comparability

Different firms apply different accounting policies. Therefore, the ratio of one firm cannot always be compared with the ratio of the other firm. Some firms may value the closing stock on LIFO basis while some other firms may value on FIFO basis. Similarly, there may be difference in providing depreciation of fixed assets or provision for doubtful debts etc.

2. False Results

Accounting ratios are based on data drawn from accounting records. In case that data is correct, then only the ratios will be correct. For example, valuation of stock is based on very high price, the profits of the concern will be inflated and it will indicate a wrong financial position. The data, therefore, must be absolutely correct.

3. Effect of Price Level Changes

Price level changes often make the comparison of figures difficult over a period of time. Changes in price affect the cost of production, sales and also the value of assets. Therefore, it is necessary to make proper adjustment for price-level changes before any comparison.

4. Qualitative Factors are Ignored

Ratio analysis is a technique of quantitative analysis and thus, ignores qualitative factors, which may be important in decision making. For example, average collection period may be equal to standard credit period, but some debtors may be in the list of doubtful debts, which is not disclosed by ratio analysis.

CURRENT RATIO

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

| YEAR | CURRENT ASSETS | CURRENT LIABILITIES | RATIOS |
|---------|----------------|---------------------|--------|
| 2014-15 | 301584988 | 228063119 | 1.32 |
| 2015-16 | 342303730 | 246815848 | 1.38 |
| 2016-17 | 254268735 | 147959830 | 1.71 |
| 2017-18 | 264582855 | 240651128 | 1.09 |
| 2018-19 | 268583954 | 224742164 | 1.19 |

INTERPRETATION:

But the current ratio shows that the firm is not utilizing its financial resources properly and large amount of funds were blocked in the current assets results in decreasing prodigality position of the company. In the year 2011-012 the ratio is increased to 1.71. But in the year 2017-18, the ratio is decreased to 1.09.

QUICK RATIO

$$\text{Quick Ratio} = \frac{\text{Liquid/Quick Assets}}{\text{Current Liabilities}}$$

| YEARS | QUICK ASSETS | CURRENT LIABILITIES | RATIOS |
|---------|--------------|---------------------|--------|
| 2014-15 | 301584988 | 228063119 | 1.32 |
| 2015-16 | 342303730 | 246815848 | 1.39 |
| 2016-17 | 254269735 | 147959830 | 1.72 |
| 2017-18 | 264582855 | 240651128 | 1.10 |
| 2018-19 | 268583954 | 224742164 | 1.20 |

INTERPRETATION:

As a conventional rule, quick ratio be 1:1 the above data of Mayur Bread reveals that quick ratio in the year 2013-14 was 1.20:1 which is above the conventional rule it says that a large amount of funds was locked in quick assets where the company is not generating by revenue or return on those assets in effect the profit abilities of the company is affected with the excess of quick assets over there quirked in the next year has put its efforts to decrease the ratio where ratio come up to 1.72:1 is good when compared with previous year ratio.

CASH RATIO

$$\text{Cash Ratio} = \frac{\text{Cash and Bank balances}}{\text{Current Liabilities}}$$

| YEAR | CASH AND BANK BALANCE | CURRENT LIABILITIES | RATIOS |
|---------|-----------------------|---------------------|--------|
| 2014-15 | 10794080 | 228063119 | 0.05 |
| 2015-16 | 23853859 | 246815848 | 0.10 |
| 2016-17 | 13219009 | 147959830 | 0.09 |
| 2017-18 | 12535001 | 240651128 | 0.05 |
| 2018-19 | 17231559 | 224742164 | 0.08 |

INTERPRETATION:

The cash ratio is not satisfactory. The ratio is 0.08 in the year 2018-19 and the ratio was 0.10 in the year 2015-16 which indicates the firm is maintaining low cash balance then required. Later the ratio decreased to 0.05 in the year 2017-18.

DEBT-EQUITY RATIO:

$$\text{Debt-Equity Ratio} = \frac{\text{Long term debts}}{\text{Equity shareholders funds}}$$

| YEAR | DEBT | EQUITY | RATIO |
|---------|-----------|-----------|-------|
| 2014-15 | 251339014 | 154785324 | 1.62 |
| 2015-16 | 318449871 | 175266750 | 1.82 |
| 2016-17 | 254269735 | 193352980 | 1.32 |
| 2017-18 | 26957014 | 209376725 | 0.13 |
| 2018-19 | 290789895 | 163198122 | 1.78 |

INTERPRETATION:

The above table shows debt equity ratio Mayur Bread when the firm capital mix contain external source of finance which base fixed interest per annum and the equity share capital, the company said to be leveraged.

As a convention rule of the firm, debt equity ratio should be 1:1. Here for the Mayur Bread in the year 2018-19 DEBT EQUITY RATIO was 1.62:1 which is somewhat higher when compared to conventional rule. Later it increased to 1.82 in the 2015-16 when compare 2015 and further decreased to 0.13 in the year 2018

WORKING CAPITAL TURNOVER RATIO

$$\text{Working capital turnover Ratio} = \frac{\text{Working capital}}{\text{Net sales}}$$

| YEARS | WORKING CAPITAL | NET SALES | RATIO |
|---------|-----------------|-----------|-------|
| 2014-15 | 84798419 | 256298405 | 0.33 |
| 2015-16 | 115341735 | 320593118 | 0.36 |
| 2016-17 | 172710681 | 394913838 | 0.44 |
| 2017-18 | 52107036 | 396037255 | 0.13 |
| 2018-19 | 65478838 | 268885007 | 0.24 |

Source: It has been collected from financial statements from mayur bread

INTERPRETATION:

Here the above table shows the working capital turnover ratio in the year 2018 it was 0.24 and further it increased to 0.44 in the year 2016-17 and later year it further decreased to 0.13 in the year 2014.

NET PROFIT RATIO:

$$\text{Net profit Ratio} = \frac{\text{Net profit}}{\text{Net sales}}$$

| YEARS | NET PROFIT | NET SALES | RATIO |
|---------|------------|-----------|-------|
| 2014-15 | 7234584 | 256298405 | 0.03 |
| 2015-16 | 625901 | 320593118 | 0.001 |
| 2016-17 | 8638802 | 394913838 | 0.02 |
| 2017-18 | 22171199 | 396037255 | 0.06 |
| 2018-19 | 6033171 | 268885007 | 0.02 |

Source: It has been collected from financial statements from mayur bread.

INTERPRETATION:

The ratio in the 2018 was 0.02. The ratio increased further in year 2015 to 0.03 and then later year by year decreased to 0.001 in 2015-16 and it increased in year 2017-18 to 0.06.

CONCLUSIONS

1. From the study I concluded that the current ratio performance is very good, and we see in the view of liquidity from the profitability view the ratio is performance was not satisfactory. Company was making idle investments in inventory.
2. From the study I concluded that quick ratio performance was not satisfactory. Company is making too much idle investments in inventories than required.
3. It is found from the study that the cash balances are insufficient for the payments to short term obligations. So I concluded that the each management performance was not satisfactory.
5. From the study I concluded that the firm is efficient in converting debtors to cash. The debtor turnover ratio is high and debtors are turning up in every 8 to 10 days. Hence we can conclude that the performance of the company in managing the debtors was satisfactory
6. From the above study I conclude that the company was effectively utilizing the funds and performance was satisfactory.
7. It is concluded from the above study that firm's profitability position is increasing compared to the previous year. The forms consistently maintain this performance is in the next year.

A CASE STUDY ON TARINI - NAVIKA SAGAR PARIKRAMA



STUDENT'S STUDY PROJECT SUBMITTED TO THE COMMISSIONER
OF COLLEGIATE EDUCATION, GOVT. OF TELANGANA, HYDERABAD

Under the

JIGNASA

Submitted by

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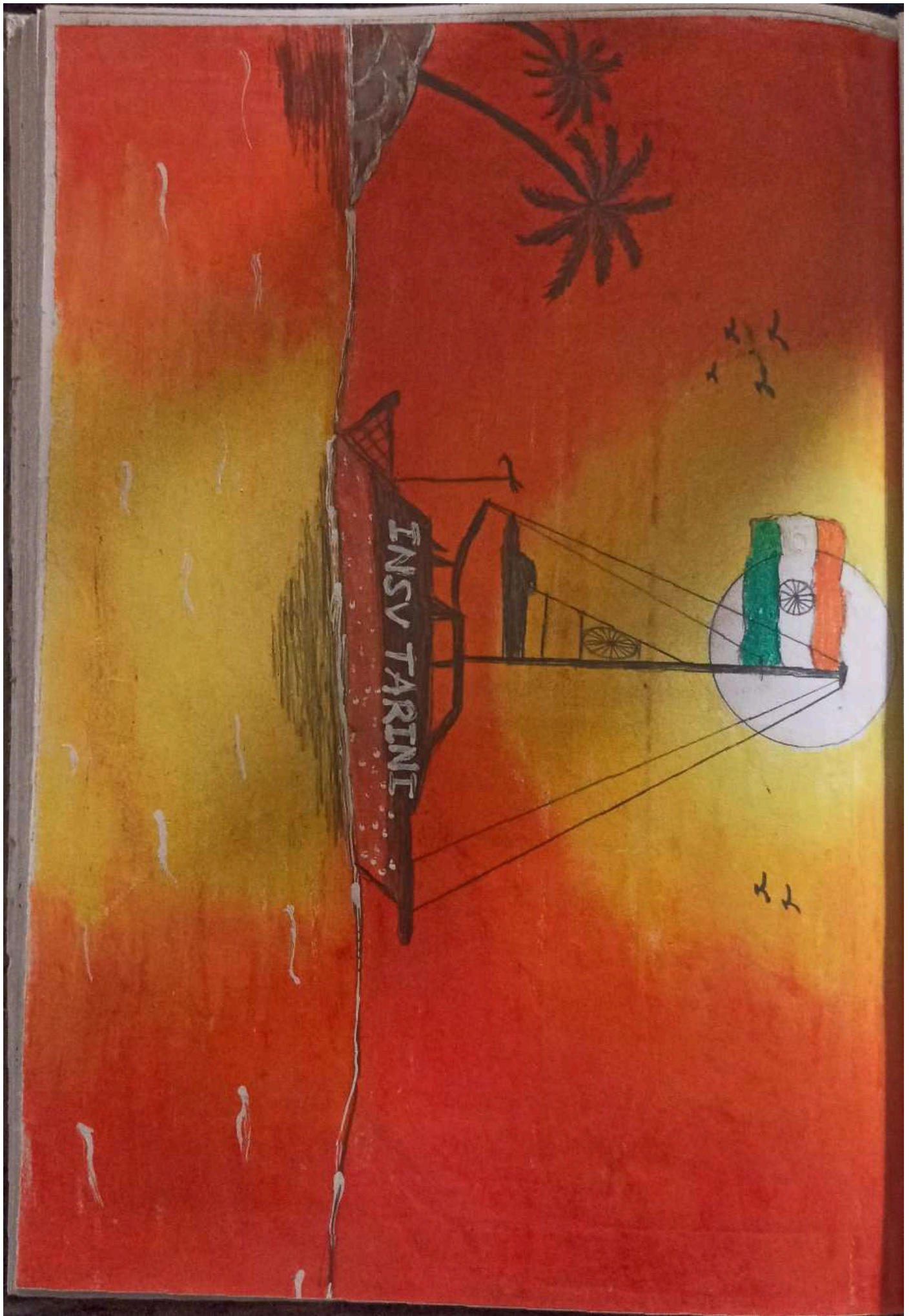
Under the supervision of

NAZIA RAHAMAN

Lecturer in History

DEPARTMENT OF HISTORY

GOVERNMENT DEGREE COLLEGE FOR WOMEN
KARIMNAGAR, TELANGANA
NOVEMBER, 2018



A CASE STUDY ON TARINI/ NAVIKA SAGAR PARIKRAMA



STUDENT'S STUDY PROJECT SUBMITTED TO THE COMMISSIONER
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



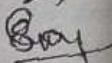
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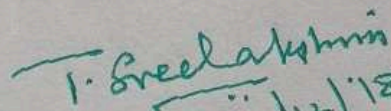
GOVERNMENT DEGREE COLLEGE FOR WOMEN
KARIMNAGAR, TELANGANA
NOVEMBER, 2018

DECLARATION

We do hereby declare that the work presented in this study project entitled "A CASE STUDY ON TARINI/ NAVIKA SAGAR PARIKRAMA" by the Students is an original work has been carried out by us in the Department of History, Government Degree College for Women, Karimnagar, and has not been submitted either in part or in full for the award of any Degree or Diploma of any Institute/University earlier.

Date: 20/12/2018
Place: KARIMNAGAR

Syeda Rumana Ameen 
Firdouse Fathima 
Saba Fathima 
Afreen Fathima 
Samreen Sultana 


20/12/18
Principal
Govt. Degree College for Women
Karimnagar (T.S.)

NAZIA RAHAMAN

M A SET

Lecturer in History



DEPARTMENT OF HISTORY
GOVERNMENT DEGREE COLLEGE
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505001
TELANGANA, INDIA

CERTIFICATE

This is to certify that the students Perception towards "**A CASE STUDY ON TARINI/ NAVIKA SAGAR PARIKRAMA**" has been carried out by Syeda Rumana Ameen, Firdouse Fathima, Saba Fathima, Afreen Fathima and Samreen Sultana Students of B.A (U/M) Department of History, Govt. Degree College for Women, Karimnagar, under my supervision. It is a bonafide work done by them and has not been submitted elsewhere for the award of any Degree or Diploma. This study project is the standard expected and I recommend that it may be sent for evaluation.

Date: 20/12/2018

Place: KARIMNAGAR

Nazia Rahaman

Study Project Supervisor

ACKNOWLEDGEMENTS

We feel it a great honour and proud privilege to express our heartfelt gratitude to **Shri. Navin Mittal Garu, IAS**, the Commissioner of Collegiate Education, Hyderabad, Telangana, for introducing such a wonderful, research oriented and skill development programme of JIGNASA to Degree College Students across the State of Telangana. Indeed, this programme develops the academic qualities, inquisitiveness, Creative talent and the bent of research in the students. We extend our sincere gratitude for giving us an opportunity to undertake study projects under the **JIGNASA-Student Study Projects**.

We owe a great debt to **Smt. T. Sri Lakshmi Garu**, beloved Principal of this college and the dynamic leader who kindled inspiration among us and for her constant motivation, encouragement for undertaking this study project and constructive suggestions for completion of this project.

We feel extremely happy to extend deep sense of appreciation to our teacher and research supervisor **Mrs. Nazia Rahaman**, Lecturer in history, Dept. of history, Government Degree College for Women, Karimanagar, who has guided our research work with meticulous care and scholarly expertise. She spared her valuable time, shown keen interest and offered constructive suggestions at every stage of our research work, without which this study project would not have been light of the day.

We thank all the Staff and students of Social Sciences Department in particular and all the students of Government Degree College for Women, Karimnagar in general, for their encouragement and the support they have extended during the course of study project.

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مقاصد و Objectives

- * Navika Sagar Parikrama کو جاننا۔
- * ایسٹیا کی سب سے پہلی ٹوائین (Team Tarini) جس نے دنیا کی پوری چکر لگایا۔ ان کے بارے میں جاننا۔
- * Parikrama کے دوران درپیش مشکلات کو جاننا۔
- * زوجہ والوں ہیں اس یادگار اور تاریخی سفر سے متعلق شعور بیدار کرنا۔

مفروضات Hypothesis

- * ہندوستانی خواتین کو خود مختار بنانا۔
 - * اس طرح کے پروپوزیشن کے ذریعہ خواتین میں خود اعتمادی پیدا کرتا۔
 - * ہندوستان کے پرنسپل میں خواتین کے نام ادرنچا ہوتے دیکھنا۔
 - * مستقبل میں ہندوستانی خواتین 'Tarini' کی خواتین سے بھی زیادہ ترقی کے لیے تیار کرنا۔
-

Navika Sagar parikrama



10 ستمبر 2017ء سے 21 مئی 2018ء کے درمیان ہندوستانی
خواتین کی چاندی سے نہ صرف ہندوستان بلکہ ایشیا کا پورا بحری سفر
کامیاب اس بحری سفر کو ہندوستانی بحری فوج کی خواتین افسروں نے اپنے
ہندی کیپٹن اور طاقفی سے ستارن فار کاسیابی بخنشی اور بھارے درپٹن
کے پیریک شپری کاسر غنر سے ارنج کر دیا۔

Paxikrama کی مکمل تیاریاں

- * Goa to Fremantle - (10 Sept - 23 Oct 2017)
→ 2 Weeks stay in Fremantle -
(23 Oct - 5 Nov 2017)
- * Fremantle to Lyttelton - (5 Nov - 29 Nov 2017)
→ 2 Weeks stay in Lyttelton
(29 Nov - 12 Dec 2017)
- * Lyttelton to Falkland Island
(12 Dec 2017 - 21 Jan 2018)
→ 2 Weeks stay in Falkland Island
(21 Jan - 4 Feb 2018)
- * Falkland Island to Cape town
(4 Feb - 2 March 2018)
→ 12 days stay in Cape town
(2 March - 14 March 2018)
- * Cape town to Goa (Home coming)
(14 March - 21 May 2018)

Parikrama کے مقاصد

- * اس Parikrama کی انجام دہی کے سبب ہندوستانی بھری قوت کے مندرجہ ذیل مقاصد تھے۔
- * خواہن کو با اختیار بنانا اور ان کے درجہ کو بلند کرنا۔
- * ہندوستانی خواہن کی قابلیت کو دنیا کے سامنے پیش کرنا۔
- * خواہن سے متعلق منفی خیالات رکھنے والے افراد کے نظریے میں تبدیلی لانا
- * دوسرے ممالک کے ساتھ دوستانہ ماحول کو فروغ دینا۔
- * مندر کے پانی کی آلودگی کی سطح کو جاننا۔
- * Make in India کی طرز پر پہلا قدم بڑھانا اور اسے دوسرے ممالک میں متعارف کرنا۔
- * مندر سے متعلق شئی معلومات کو جاننا تاکہ موسم کی بھونے والی تبدیلی کا مطالعہ کیا جاسکے۔
- Parikrama کا مقصد نہ صرف مندر کے درجہ بالا مقاصد کو پورا کرنا تھا بلکہ اس کا اہم اجر بنیادی مقصد یعنی سٹی ریکارڈ کے Parikrama کو کامیابی کے ساتھ مکمل کرنا تھا۔

Parikrama کے لئے بنائی گئی پانی کی جہاز

* INSV Tarini *



گوآ کے دیوار تیز لیرہ (Devar Island) میں ہندوستان کی ایک مشہور جہاز بنانے والی کمپنی ہے جو 1995ء سے مختلف اقسام کے جہاز تیار کر رہی ہے اس کمپنی نے اب تک ہندوستان ہندوستانی بحری فوج کے لئے جہازوں کو بنایا ہے اس کمپنی کا نام "Aquarius Shipyard Private limited" ہے۔

سال 2009ء میں بھی ہندوستان بحری فوج کی جانب سے بحری فوج کے افسر "Commander Dilip Donda" نے ایک یادگار سمندری سفر کے وہ پہلے ہندوستانی پن جس نے اپنے زمین کے

جس نے اکیلے زمین کے اطراف سمندری چکر لگایا اور اس یادگار سمندری سفر کے لئے خود "Aquarius Shipyard private limited" نے جہاز بنائی تھی جس کا نام "INSV Mhadi" رکھا گیا جو کہ ایک بیسٹا بڑی اور مخصوص پانی کی جہاز تھی اس لئے ہندوستانی بحری فوج نے 18-2017ء کی Navika Sagar parikram کے لئے بھی اسی کمپنی کو جہاز بنانے کی ذمہ داری دی تھی۔

Aquarius Shipyard private limited کے شعبہ Mr. Ratnagar Dandekar نے اس جہاز کو بنایا جہاز کو مکمل تیار کرنے اور اس کی مقبوضگی کو بائیں کے بعد اس جہاز کو 18 ستمبر 2018ء کو ہندوستانی بحری فوج کے حوالے کر دیا اس مخصوص جہاز کی طبعی 56 فٹ ہے۔

جہاز بننے کے بعد جب وہ ہندوستانی بحری فوج تک پہنچی تو Lieutenant Commander Pratibha جو کہ شیم تارینی کی ایک عجیبے خوں نے بحری فوج کو مشورہ دیا کہ اس جہاز کا نام "Tarini" رکھا جائے۔ Tarini کا معنی "پار کرنے والی" کے ہیں۔ یہ نام ایک مزار سے لیا گیا جو کہ ایک مقام Gonjam میں موجود ہے اس مزار کا نام The Tarini temp ہے۔

ہندوستانی بحری فوج کی رضا مندی اور اجازت کے بعد

آئنگا اس جہاز کو "INSV Tarini" نام دیا گیا۔ جس کا مطلب "Goddess for sea fexions" ہے۔ INSV کا مطلب "Indian Naval Sailing Vessel" ہے۔ اس طرح INSV Tarini ہندوستانی بحری فوج کی دوسری بڑی پانی کی جہاز ہے اس جہاز کو ہندوستانی بحری فوج کی پہلی جہاز "INSV Mhadi" کی بہین کہا گیا ہے۔

INSV Tarini is the sister vessel of INSV Mhadi

INSV Tarini کی خصوصیات

INSV Tarini ایک Systematic جہاز ہے جس میں بہتر

پڑی سہولیات کا خاص خیال رکھا گیا۔ اس جہاز کی مندرجہ ذیل خصوصیات ہیں۔

- * HF/VHF radio
- * Inmarsat network
- * Satellite Communication
- * Cooking facility
- * Emergency position indicating radio
- * Raymarine electronic autopilot and one wind driven autopilot
- * Monitor windvane equipped for emergency steering.
- * Super wind generator.
- * RO plant which gives 30 litres water an hour

اس طرح کی فہرست خصوصیات اور سہولیات کے ساتھ

INSV Tarini تیار کیا گیا۔

TEAM TARINI



اس عالمی سڑکی خدمہ داری پچھ ہندوستانی پوری فوج کے خواستین
افسروں کو دی گئی جسے "Team Tarini" کیا گیا۔ شہم تارینی کے ان پچھ

افسروں کی تفصیلات مندرجہ ذیل ہیں۔

1. Lieutenant commander Vastika Joshi .
2. Lieutenant commander Pratibha Jamwal .
3. Lieutenant commander P. Swati .
4. Lieutenant commander Aishwarya Boddapati .
5. Lieutenant S. Vijaya Devi .
6. Lieutenant Payal Gupta .

Lt. Com. Vartika Joshi

Team اور Commanding officer کی INSV Tarini
Captain درتیکا جوشی (رہنما کی پیش) (رہنما کی پیش) (رہنما کی پیش) (رہنما کی پیش)
افسر ہے ان کا پورے فوج میں داخلہ اگست 2013 میں ہوا۔ درتیکا جوشی
کی پیدائش 1991 میں ہوئی یہ 27 سال کی افسر تھو کہ ایک اہلکار ہے
انہیں 'Painting' اور 'Singing' اور 'Travelling' سے کافی لگاؤ اور
دلچسپی ہے ان کے والد P.K. Joshi ایک پروفیسر اور والدہ
Dr. Alpana Joshi ہیں۔

Lt. Com. Pratibha Jamwal

جولائی 2011 میں گلو، ہماپل پر دیش سے Lt. Com. Pratibha
Jamwal ہندوستانی بحری فوج میں داخل ہوئی یہ ایک Air traffic
Controller تھی، انہوں نے ہی جہاز کا نام Tarini رکھنے کا سٹیورہ
بحری فوج کو دیا تھا۔

Lt. Commander P. Swati

یہ دستاویز ہے، آرزو ہے درتیکا جوشی کی رہنے والی افسر ہے اس کے Swati
cat کے نام سے بھی جانا جاتا ہے یہ اپریل 2015 میں Navika
Sagar Parikrama کے دستخط کی گئی۔ یہ اپنے NCC کے
دنوں سے ہی فوج میں داخل ہونے کی خواہش مند رہی۔

انہوں نے 2017 میں Cap to Rio میں حصہ لیا تھا جو اس میں
Paukrama میں داخل ہونے کا مصداق تھا۔

: Lt. Com. Dishwarya
Boddhapati

یہ بھاری ریاست تلنگانہ کے صدر مقام میددرا پور کی رہنے والی تھی
ان کی پرفیٹ Isha ہے یہ مارچ 2018 میں ٹیم تارپینی کی نمبر بی
ریاست تلنگانہ کے فخر کا باعث بنی۔ ان کی بیوی نے تلنگانہ کی شان
کو بڑھا دیا۔

: Lt. S. Vijaya Devi

یہ منی پور کی رہنے والی ہے جو پتھاری (Singer) ہے وجہاً
۶ پوی انگریزی کی ایک قابل اسٹار ہے جس کی ہے اور ستمبر 2012 میں
فوج میں داخل ہوئی یہ ان کا سب سے بڑا خواب تھا جو 2012 میں پورا ہوا
ان کا کہنا ہے کہ انہوں نے ثابت کر دیا کہ خواتین اور مرد برابر ہیں۔

: Lt. Payal Gupta

جہاز کی Logistic Officer پائل گپتا دلیر اور بہادر
سین پیدا ہوئی انھیں ۲۰ ستمبر 2013 میں بڑی فوج میں داخل کیا گیا
انہوں نے بھی Lt. Com. Swati کے ساتھ Cap to Rio
2017 میں حصہ لیا تھا جس کے بعد انھیں ٹیم تارپینی میں شامل کیا گیا

ان کی ٹیم کے ساتھی انیس PUKO کے نام سے پیکارتے ہیں۔
 اس طرح ان چھ خواہن افسروں کو ملا کر ٹیم تاریخی بنی
 یہ اسی خواہن ہے جو ہندوستان کے مختلف پہاڑی علاقوں میں رہنے
 والی تھیں جنھیں سندھ سے متعلق کوئی کچھ نہ تھا نہ انھوں نے کوئی سندھی
 سفر کیا کیا تھا اور نہ کسی بحری جہاز میں قدم رکھا تھا اسی خواہن نے
 اپنی تین سالہ لڑکی اور محنت کے بعد Navika Sagar parikrama
 کو کامیاب بنا پا کر ہندوستان کی ایک نئی تاریخ لکھی۔

* They show us 'The future is female'

انھوں نے اپنے کارناموں سے سب کو یہ بتا دیا کہ خواہن سنبھل ہیں

Parikrama کی منصوبہ بندی اور ٹریننگ

اس ٹارگٹ پارکراما کی منصوبہ بندی اور تیاری تقریباً
تین سال قبل ہی سے شروع کی گئی تھی۔



Com. Dilip Dondé جنھوں نے ہندوستان کے پہلے بوری
سفر کو کامیاب بنا کر ہندوستان کا نام روشن کیا گیا جو ایک
Asian games silver medalist بھی رہ چکے ہیں انھوں
نے ہی اپنی سرپرستی میں ٹیم ٹارگٹ کو ٹریننگ دی۔

Com Dilip Wonde نے انھیں مندرجہ ذیل اہم نکات کی ترتیب سے

* How to face storm

* Astronomy

* Meteorology

* Seaman ship

* Communication

* Map reading

* Weather reading etc.

Parikrama سے متعلق یہ سب ٹیم تارینی کو کیریل اور ٹی کے
Naval School میں دی گئی یہ Parikrama ہندوستانی بحری فوج کے
لے بھی ایک بڑا تجربہ ہے تھی ٹیم کو theortically سمجھایا گیا اور پھر
Practically اسے کیا گیا۔

انھیں اس طرح Train کیا گیا کہ وہ پروگرام میں شامل ہو جائے

انھیں بہن مول بنا لیا گیا جس کے نتیجے میں Parikrama کے دوران

میکانک، Engineer، Cook، Plumber، ڈاکٹر، Washer،
House Keeper وغیرہ پر کردار کو ادا کیا۔

اس طرح Parikrama کے 254 دن کے اس شاندار سفر کے

سچے ہندوستانی پوری فوج کی تین سالہ منصوبہ بندی اور ٹریننگ تھی ایک

all rounder بننے کیلئے ٹیم تارینی نے تین سال محنت کی اور ان

کی محنت اور کوشش انھیں اس مقام تک لے آئی۔

Team Taxini کی تھملا افزائی

*وزیر اعظم کی جانب سے کی گئی تھملا افزائی



Parikrama کی انجام دہی سے قبل ٹیم تاریخی اپنے
Chief of naval Staff (Admiral Sunil Lamba) کے
ساتھ ہندوستان کے وزیر اعظم نریندر مودی سے ملیں۔ - Admiral
Sunil Lamba دہی فرہے جھنوں نے ٹوائٹن کے سعذری سفر
کا Idea دیا تھا۔

انھوں نے مودی کے سامنے اس Parikrama کی تفصیلات پیش کی
جس کے بعد مودی نے خوشی و مسرت کا اظہار کرتے ہوئے انھیں مبارکبادی

انہیں مشورہ دیا کہ وہ اس سفر کی تفصیلات کو قلم بند کرے اور
انہیں مشن کی کامیابی کے لئے دعاؤں دیں۔

* Goa کے وزیر اعلیٰ منو بیسار بیکر کی جانب سے حوصلہ افزائی

گوآ کے وزیر اعلیٰ منو بیسار بیکر نے بھی شیم تارینی پر خوشی و
مسرت کا اظہار کیا اور ان کی کامیابی پر حوصلہ افزائی کی۔

Former Defence Minister کی جانب سے کی گئی حوصلہ

"Nirmala Suta Ramani" افزائی



10 ستمبر 2017ء کو دن بیسار بیکر کی سربراہی میں گوا سے کی گئی جہاں

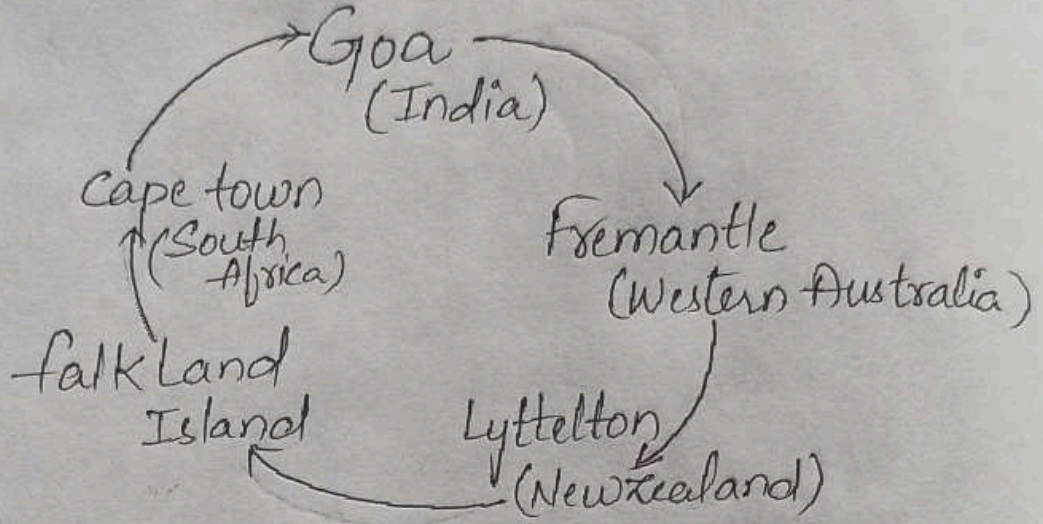
اس دن متحدہ سینڈرامن نے خود لہنگا لہرا کر شیم تارینی کو پل بیکر کیا
کے دورانہ کیا۔ یہ ان کی طرف سے شیم تارینی کے لیے بہت بڑی حوصلہ افزائی تھی

ہندوستانی بحری فوج کی جانب سے حوصلہ افزائی:



ہندوستانی بحری فوج کے بڑے بڑے افسروں نے شہدوات (یا ہی سے شہم
تاریخی کی حوصلہ افزائی کی انہیں تین سالہ تربیت لای انکی پیریکراما
کے پہلے دن 'Chief of naval staff' 'Flag officer' اور
'Vice admiral' اور 'Southern naval commando' اور
ادریگ لہڑے بحری فوجی افسروں نے شہم تاریخی کو اپنے شہن پیروانہ کیا۔
Parikrama کے اختتام پر بھی ان کا ہندوستان میں استقبال
کیا جس سے ان کی بہت بڑی حوصلہ افزائی ہوئی۔
اس طرح سے نہ صرف ہندوستانی بحری فوج بلکہ ہندوستان
کے کئی بڑے ذمہ دار افسروں نے حکومت کی جانب سے شہم تاریخی کی
اس مشن کی کامیابی میں حوصلہ افزائی کی۔

زمین کے بڑی سفر کا نقشہ



اس شخص سے تاریخی سفر کی شروعات 10 ستمبر 2017ء کو دوپہر 1:00 بجے گووا سے ہوئی جہاں اس Event پر گووا کے وزیر اعلیٰ منو ہیر پاریکر former Defence minister نے ملاستیا رامین، ہندوستانی بحری فوج کے تمام بڑے افسر اور شہم تاریخی کے افراد کا زائرانہ موجود رہنے ان اس کے مل کر شہم تاریخی کو خوشی و مسرت کے ساتھ Parikrama کے لئے روانہ کیا۔

Parikrama کے سفر کے جملہ پانچ (5) حصے اور

چار Steps ہیں جن کی تفصیلات مندرجہ ذیل ہیں۔

پہلا اسٹاپ (first stop):



اس شخصوں سے پہلا اسٹاپ مغربی آسٹریلیا کے Fremantle مقام تھا 23 اکتوبر 2017 کو شیم اس مقام پر پہنچی۔ یہاں کے شہر Perth میں دو ہفتہ سکونت اختیار کی۔ ان دو ہفتوں میں شیم کی ملاقاتیں مغربی آسٹریلیا کے ارکان پارلیمنٹ، دونوں شہروں (Perth & Fremantle) کے ارکان کو شلس سے ہوئی۔

یہاں شیم نے مقام کے قریبی مدارس کے طلباء و طالبات سے مل کر انھیں مستقبل کے بارے میں بتایا اور ان کے علاوہ شیم وہاں پر موجود Bureau of Meteorology 'Indian ocean marine research center

Intergovernmental oceanographic commission اور

Office وقت بھی گئی اور جہاز کی وقت ضرورت چانچ کر والی -

اس طرح دو ہفتوں کے وقفے کے بعد ٹیم 5 نومبر کے دن مغربی آسٹریلیا سے Parikrama کر کے آگے بڑھی -

دوسرا اسٹاپ (Second stop):



29 نومبر 2017 کو INSV Tarini نیوزی لینڈ کے

Lyttelton port میں داخل ہوئی جہاں ان کا استقبال

مسٹر سنجیو کوہلی High commission of India to

New Zealand کیا -

3 ستمبر کے دن India Make کی طرف پہلا قدم

رکھا گیا -

جہاں INSV Tarini کو دیکھنے کیلئے 2000 کا ٹریپ شیری آئے
 اور پیراڈیگرما سے متعلق معلومات حاصل کی۔ اس کے لئے علاوہ ٹیم
 نے نیوٹری لیز کے کچھ تاریخی مقامات کا بھی دورہ کیا اس Parikrama
 کی تفصیلات شہریوں کے سامنے بیان کی نہ صرف شہریوں بلکہ طلباء کیلئے
 بھی ایک خاص پروگرام رکھا گیا جس میں 200 سے زائد طلباء شامل ہوئے
 اور بعد 12 ستمبر 2017 کو ٹیم نیوز لیز سے نکل کر سفر کے لئے تیار ہوئی۔

تیسرا اسٹاپ (Third Stop):



INSV Tarini 21 جنوری 2018 کو Falkland جزیرہ کے
 Post Stanley میں داخل ہوئی جو ان کے مشن کا تیسرا اسٹاپ
 تھا۔ ٹیم کیلئے دوسرے اسٹاپ سٹیڈ اسٹاپ تک 41 دن

Pacific Ocean کے طوفان اور موسم کی جہازیں لے کر دعا وقت لگھا
جہاں انھوں نے جہاز کے تمام تفصیلات کو قلم بند کیا۔

Falkland- تیرہ میں وہاں کے گورنر Mr. Nigel
Philips اور دوسرے بڑے افسروں نے ٹیم کا استقبال کیا اس مقام
پر ٹیم نے سینڈری اسکول کے طلباء اور طالبات سے ملاقات کی اور انھیں
دیکھنا کیا تو یہ 2 ہفتہ بعد 4 فروری 2018 کو ٹیم Cape town
کی طرف سفر کو آگے بڑھایا۔

چوتھا اسٹاپ (fourth stop):



2 مارچ 2018 کو INSV Tarini جنوبی آفریقہ کے مقام
Cape town کو پہنچی یہ ان کی Parikrama کا آخری stop تھا

جس کے بعد ان کا یادگار سو اختتام ہونے والا تھا یہاں ان کا
استقبال پارلیمنٹ کے رکن 'Mayor Helen Zille' اور
Capetown اور 'Kamboj' (High Commission of India to
South Africa) کے چیئر پرسن
Johannesburg نے بہت ہی خوشی و مسرت
کے ساتھ کیا یہاں ٹیم کی ملاقات ایک Champion سے ہوئی
جس نے مسعود کا ایک بڑا ناملہ تیر کر
World Record بنایا تھا۔

اس طرح 14 مارچ 2018 کو ٹیم واپس گوالیار (پندروستان)
کی طرف نقل پیری۔

ہندوستان میں شیم کی واپسی



اس یادگار اور تاریخی سفر کا اختتام 21 مئی 2018 کو گوا میں ہو جہاں شیم چلے 21,980 nautical miles کا سفر کے پہنچے۔ جہاں ان کا پہلا ہی فخر کے ساتھ خوشامد کیا گیا اس event میں ان کا استقبال دفاعی لکشنر نرملاسیٹھ (امن) اور ہندوستانی بحری فوج نے کیا۔

اس طرح اس Parikrama کے دوران ایک چھوٹی

جہاز سے تین کمپاساگر Indian Ocean، Pacific Ocean

اور Atlantic Ocean کو پار کر کے ان بہادر خواتین نے

ملک کی تاریخ بدل دی انھوں نے سفر کے دوران دو مرتبہ

Equator کو بھی پار کیا۔

Parikrama کے دوران کٹے گئے مشقوں کا سامنا



ٹیم کو سمندر میں ایک بڑے طوفان کا سامنا کرنا
 پڑا۔ ٹیم بالکل بھی اس سے ٹٹنے کا طریقہ نہیں جانتی تھی یہاں کے لے
 بیٹ بڑا امتحان تھا اور میٹر کی لہریں ان کے سچھے آرہی تھیں جیاز
 قابو سے پا پر چلی گئی جیاز کی Staying کو بڑا نقصان پہنچا یہ اس
 وقت ہوا جب مشن اختتام پر تھا اسے وقت میں ٹیم کو صفر ڈگری
 Temperature میں زرا رہ کر مشن کو کامیابی بخشتی تھی۔
 یہ پورے 20 گھنٹے کا طوفان تھا یہاں پر گھنٹہ 140 کلومیٹر کی
 رفتار سے چل رہی تھی۔

اس طرح کے مشکل حالات میں بھی ٹیم نے حوصلہ نہیں
 ہارا اور مشن کو طوفان سے نکال کر آگے بڑھی۔

نیشنل تارینیگی کو دینے کے اعزازات



Naxi Shakti puraskar.



8 مارچ 2018 بین الاقوامی یوم خواتین کے موقع پر

نیشنل تارینیگی کو - "Outstanding contribution towards women empowerment" کے لئے صدر جمہوریہ ہند

رام ناٹھ گووند صاحب کی جانب سے یہ اعزاز عطا کیا گیا جس میں

انھیں Certificate اور نیشنل کے پر عہدہ کو ایک لاکھ روپے دینے کے

ادراں کی کامیابی کے لئے مبارکباد دی گئی۔

Nao Sena galentary award



پندرہویں سال کی فوج کی چابکداز سے 15 اگست 2018
کے موقع پر شرم و Nao Sena award سے نوازا گیا۔

طریقہ کار Methodology

- * دو سہ درجہ کے سروے کی مدد دی گئی۔
- * عملی طریقہ کار استعمال کیا گیا۔
- * سوال نامہ Questionnaire تیار کیا گیا۔
- * Questionnaire میں تیار کیے گئے سوالات کے ذریعہ
- کریسمس نگر اور حلیگر چند اضلاع کے علاقہ کا سروے کیا گیا۔

تجزیہ Analysis

کئی گئی تحقیق میں تقریباً 50 افراد سے سوالات کئے گئے جن میں 26% خواتین اور 74% مرد حضرات حصے تحقیق میں 20 تا 65 سال کی عمر کے افراد نے اپنا رد عمل ظاہر کیا ان میں S.S.C ' انٹر میڈیٹ ' ' UG ' ' P.G ' ' B.Ed ' ' M.Tech ' ' B.Tech ' ' M.B.A ' ' P.hd ' ' M.Ed ' ' I.T.A ' ' L.L.B ' جیسی تعلیمی قابلیت رکھنے والے افراد شامل ہے تحقیق میں جن سے سوالات کئے گئے وہ افراد تاجیر ، سرمد مدرس ، لکچرر ، انجینئر ، ڈاکٹر ، ' News reporter ' ، جمیع ، ' Drive ' وغیرہ جیسے پیشوں میں کام کر رہے ہیں اس تحقیق کے دوران زیادہ تر تعلیم یافتہ افراد سامنے آئے تحقیق کا دائرہ ضلع کریم نگر اور اس کے اطراف و اکناف کے اضلاع میں جن میں حمید آباد ، عادل آباد ، منچیر پال ، پلازلی وغیرہ شامل ہیں ۔

جو کہ تحقیق خواتین کی تعلیم اور ترقی سے متعلق تھی اس کے تحقیق میں زیادہ تر مرد حضرات سے سوالات کئے گئے اور خواتین کی ترقی و تعلیم سے متعلق اکتانظر یہ جاننے کی کوشش کی گئی ۔ تحقیق کے مطابق 84% افراد خواتین کی ترقی کو پسند کرتے ہیں جبکہ 16% افراد خواتین کی ترقی کو ایک حد تک پسند کرتے ہیں 90% افراد یہ مانتے ہیں کہ خواتین مکمل طور پر خود مختار ہیں ہے

کہ لے یہ اعزازات کافی ہیں اور وہ اس سے بھی زیادہ حوصلہ
افزائی کی ضرورت محسوس کرتے ہیں کیونکہ وہ یہ مانتے ہیں کہ اگر ششم
کی بیڑے پیمانہ پر حوصلہ افزائی کی جائے گی تو یہ ملک کی دوسری خواہشوں کے
لئے یہ حوصلہ افزائی ضروری ہے کہ ثابت ہوگی۔

حکومت ہند کی اجازت کے بعد Indian navy نے جس طرح
Navika Sagar parikrama کو شاندار کامیابی بخشتی اس سے
لوگوں میں خوشی و مسرت دیکھنے ملی۔ 30% افراد چاہتے ہیں کہ Navy
اس طرح کے اور Operations کو لے منہ بولے بنا لے اور ملک کا نام دنیا بھر
میں ادرخا کرے جبکہ 64% افراد کہنا چاہتے ہیں کہ حکومت ہند کو دوسرے میدانوں
میں اس طرح کے Operations کرنے چاہئے تاکہ ملک پر میدان میں آگے
بڑھے اور ہندوستانی ترقی پزیر سے ترقی یافتہ ملک بنے۔

حقیقی سے پتہ چلا کہ 62% افراد یہ مانتے ہیں کہ ملک کی خواہشوں
Team Tassini سے بھی زیادہ زیادہ ہے اور اگر انہیں موقع فراہم کیا جائے
تو وہ ان سے بھی زیادہ ملک کا نام آگے بڑھا سکتی ہے اور دنیا میں
ہندوستان کے مقام کو ادرخا کر سکتی ہیں۔

حسب بالا تجزیہ کا جب تفصیلی جائزہ لیا گیا تو یہ

نتائج مندرجہ ذیل ہیں۔

نتائج Finding

Navika Sagar parikrama / شیم تاریخی کے بارے میں لوگوں میں شعور بیدار کرنے کی غرض سے جب یہ تجزیہ کیا گیا تو یہ بات کھل کر سامنے آئی کہ 84 افراد خواہش کی لہری کو پسند کرتے ہیں اور انہیں آگ بڑھنے دیکھنا چاہتے ہیں 99 موجودہ دور میں لڑکیوں کی تعلیم کو بے حد فروری سمجھتے ہیں اور انہیں پوری امید ہے کہ مستقبل میں خواتین اپنے مقام کو اور بھی اونچا کر سکیں گی جسے جنسی تفرقات میں لہری خود تک تبدیلی آئے گی۔ اس تجزیہ میں آزاد تعداد اعلیٰ تعلیم (صحت رکھنے والے) اور محفرت کی ہے جنہوں نے Navika Sagar parikrama کی حکمیاتی اور شیم تاریخی کی میادری لہری خوشی و مسرت کا اظہار کیا ان کا یہ بھی کہنا تھا کہ وہ اپنے گھر کی خواتین کو بھی خود مختار بنانا چاہتے ہیں انہیں آگ بڑھنے سے بوجھ دیکھنا چاہتے ہیں ان کی افراد یہ چاہتے ہیں کہ ان کے گھر کی خواتین Team Tarini کی طرح بنیں اپنے Performance سے ملک کا مستقبل سنوارے اور انہیں لگتا ہے کہ بہت جلد ایسا ہوگا۔

تحقیق کے دوران زیادہ تر گورنمنٹ اور خانگی ملازم حکومتی بنیادوں پر Indian Navy کے اس لہری گرام سے خوش نظر آئے ان کو لگتا ہے کہ نہ صرف فوج میں بلکہ دوسرے میدانوں میں بھی حکومتی بنیادوں پر اس طرح کے Operations کے لئے خواتین ہر میدان میں آگ بڑھے۔

اختتام (Conclusion)

عنوان - A study of Team Taxini -
(Navika Sagar parikrama) کتاب کا اہم مقصد
جو جوانوں میں اس یادگار تاریخی parikrama سے متعلق شعور پیدا
کرنا ہے۔ اس طرح سے ہندوستانی قومی فوج کی جو خواہش ہے پوری دنیا کا پوری
حکامات اور ہندوستان کی نئی تاریخ بنانی۔

اس عنوان کو منتخب کرنے میں ہماری مقصد ملک کی ٹوائین
کی جو کہ انسانی کرنا ہے Navika Sagar parikrama میں
دریافت ہم خواہش کو محرکہ دیکھ سکتے ہیں اس سے متعلق جوابات کے
بعد خواہش میں خود اعتمادی پیدا ہوگی اس طرح کے محرک سے یہ حلقہ میں
خواہش اپنے Performance کو بہتر کرنے کی کوشش کرے گی۔

اس مقصد کو پورا کرنے کے لیے ہم B.A اردو میڈیم کے طلباء
میں ایک تحقیق کرنے کا منصوبہ بنایا اور عنوان سے متعلق ایک سوال تیار
کیا اس سوال نامہ میں ہم نے اس طرح کے سوالات لکھے۔

* کیا آپ ٹوائین کی ترقی کو پسند کرتے ہیں؟

ا) ہاں ب) نہیں ج) ہاں اور ایک اور

* کیا موجودہ دور میں لڑکیوں کی تعلیم ضروری ہے؟

ا) ہاں ب) نہیں ج) ہاں اور صرف لڑکیوں کے لیے

* کیا آپ Navika Sagar parikramay Team Tarini کے بارے

میں جانتے ہیں

یاں (a) ہیں (b) یاں (c) یاں ٹھوڑا سا سنا ہے ۔

تلنگانہ کے چینڈا اضلاع کریم نگر، حیدرآباد اور رنگ و فر کے مقامی افراد سے سوالات لکھے اور عنوان سے متعلق ان کے خیالات پر جاننے کی کوشش کی تحقیق میں ہم اسیے افراد سے ملے جو اعلیٰ تعلیم یافتہ ہیں

تمام افراد میں سے 80% افراد Team Tarini کے بارے میں

جاننے والے اور 20% افراد Team Tarini کے متعلق معلومات سے

محروم تھے ہم نے ان 20% افراد کو ٹیم تارینی کے بارے میں مکمل

تفصیلات بتائی جس تک بعد ہم تک اپنے تیار کردہ سوال نامہ کو ان

سے پُر کر دیا

کی گئی تحقیق میں تقریباً 50 افراد سے سوالات لگائے گئے جن

میں 26% خواہن اور 74% مرد معلومات تک تحقیق میں 20 تا 65

سال کی عمر کے تعلیم یافتہ افراد تک اپنا رد عمل ظاہر کیا جن میں تاجپر،

ٹیپر، لکھنؤ، خرائٹ، Engineers وغیرہ شامل تھے تحقیق کے بعد

ہم اس نتیجہ پر پہنچے کہ 84% افراد خواہن کی ترقی کو پسند کرتے ہیں

وہ موجودہ دور میں خواہن کی تعلیم کو بے حد ضروری سمجھتے ہیں اور

50 امید رکھتے ہیں کہ مستقبل میں خواہن مکمل طور پر خود مختار بنے

کی ان افراد کا یہ بھی کہنا ہے کہ وہ اپنے گھر کی خواتین کو ٹیم تارینی

سے بھی آگے بڑھتے دیکھنا چاہتے ہیں

(References) (المرجعات)

- * Internet (Google search).
- * Social media (Whats app, twitter)
- * Press interviews.
- * Electronic Media
- * Print media (news papers)

Tigrasa Student Study Project - 2018.

Questionnaire

Topic: A Case study of team tarini (Navika Sagar Parikrama)

نام: _____
جنس: _____
تعلیمی قابلیت: _____
مقام: _____

- 1) کیا آپ خواتین کی ترقی کو سہ کرتے ہیں؟ ()
(a) ہاں (b) نہیں (c) ہاں اور ایک حد تک۔
- 2) کیا آپ کی نظر میں آج کی خاتون خود مختار ہے؟ ()
(a) نہیں (b) ہاں (c) ہاں اور آگے بڑھنے کی ضرورت ہے۔
- 3) آپ کی نظر میں آج کی ماڈرن خواتین کون ہے؟ ()
(a) فلمی ہیروئنس (b) اسپورٹس ویمنس (c) کسی اور ایسٹریٹ میں اونچا مقام حاصل کرتے والی
- 4) کیا آج کے دور میں لڑکیوں کی تعلیم ضروری ہے؟ ()
(a) ہاں (b) نہیں (c) ہاں اور معلومات کے حد تک۔
- 5) کیا آپ Team Tarini کے بارے میں جانتے ہیں؟ ()
(a) نہیں (b) ہاں (c) ظہور آہٹ سنا ہے۔
- 6) کیا آپ کی نظر میں وہ آج کی سب سے ماڈرن خواتین ہے؟ ()
(a) ہاں (b) نہیں (c) علم نہیں جانتے۔
- 7) کیا آپ رتنی بین، بیٹی یا بیوی کو ان کی طرح بنا سکتے ہیں؟ ()
(a) نہیں (b) ہاں (c) آریں سے بھی آگے بڑھنا چاہئے۔
- 8) کیا حکومت رتنی Team Tarini کو اعزاز دیا ہے وہ کافی ہے یا اور زیادہ جو ملنا چاہئے؟ ()
(a) کافی ہے (b) اتنے اعزاز دینے لئے (c) اور زیادہ جو ملنا چاہئے اور ان کے لئے اعزاز
- 9) کیا حکومت ان کو اس طرح اور Operations کے لئے جانتے ہے؟ ()
(a) ہاں (b) نہیں (c) ہاں اور دوسرے میدانوں میں۔
- 10) کیا آپ کو لگتا ہے کہ خواتین کو نیا دستانہ ملنا اس طرح Operations کے لئے ()
دریغ ہے یا نہیں اونچا کر سکتے ہیں۔ یا یہ بدلا اور آئی ہو گیا؟ ()
(a) کر سکتے ہیں (b) مشکل ہے (37) (c) اس کے بھی زیادہ بہتر کر سکتے ہیں

समाज सुधारक के रूप में संत कबीरदास

(Samaj sudharak ke roop may sant Kabir Das)

Social reformer sant Kabir Das

Submitted to:

Department of Hindi



For JIGNASA:

Student study Project- 2018-2019

Submitted by-

- १.Neha Tahaleel -I BSc ३.Umam Hazra Fathima-I MPCS
२.Nishath Farheen-I BZC ४.G.Sai Sneha-I Bcom CA
५. Nazreen-I BZCA

Under the Guidance of:

Sushree. Bojja Rama Devi Shyamaiah.

Lecturer in Hindi

GOVERNMENT DEGREE COLLEGE FOR WOMEN,

DIST:KARIMNAGAR-505001

हिन्दी की बोलियाँ
(HINDI KI BOLİYAN)

Submitted to:
Department of Hindi



JIGNASA-2021

Student study project

Submitted by:

1. Subia Tahreem-(II-BZC)
2. Romana Raheem-(II-BZC)
3. Iffath Unnisa Sabry-(II-MBZC)
4. Shicema Afnan-(II-BZCS)
5. Zuha-(II-MBZC)
6. Zeba Fathima-(II-BA)

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शोधकार्य के मुद्रित आधार:- भारत वर्ष में प्रादेशिकता के अनुसार , अनेक २९ राज्य है उन राज्यों में अपने-अपने मातृभाषाएँ हर भाषा में मानक भाषा मूढ (Local आमभाषा) भाषा होती है। लोगों के मांडलिकता प्रादेशिकता सांस्कृतिकता के अनुसार भाषाएँ, की बोलियाँ उपबोलियाँ भी रहती है जो लिपिबद्ध अलिपित भी होती हैं। हिन्दी भाषा साहित्य में स्वर्णिमता को पारितोषी थी। हिन्दी साहित्य में अनविनत विषयों में मुद्रित ज्ञान प्राप्त होता है खास कर हिन्दी साहित्य में भाषा विज्ञान के और हिन्दी साहित्य का इतिहास ग्रंथ अनेक भाषाओं में उपलब्ध हैं

हमारे शोधकार्य के मुद्रित आधार है

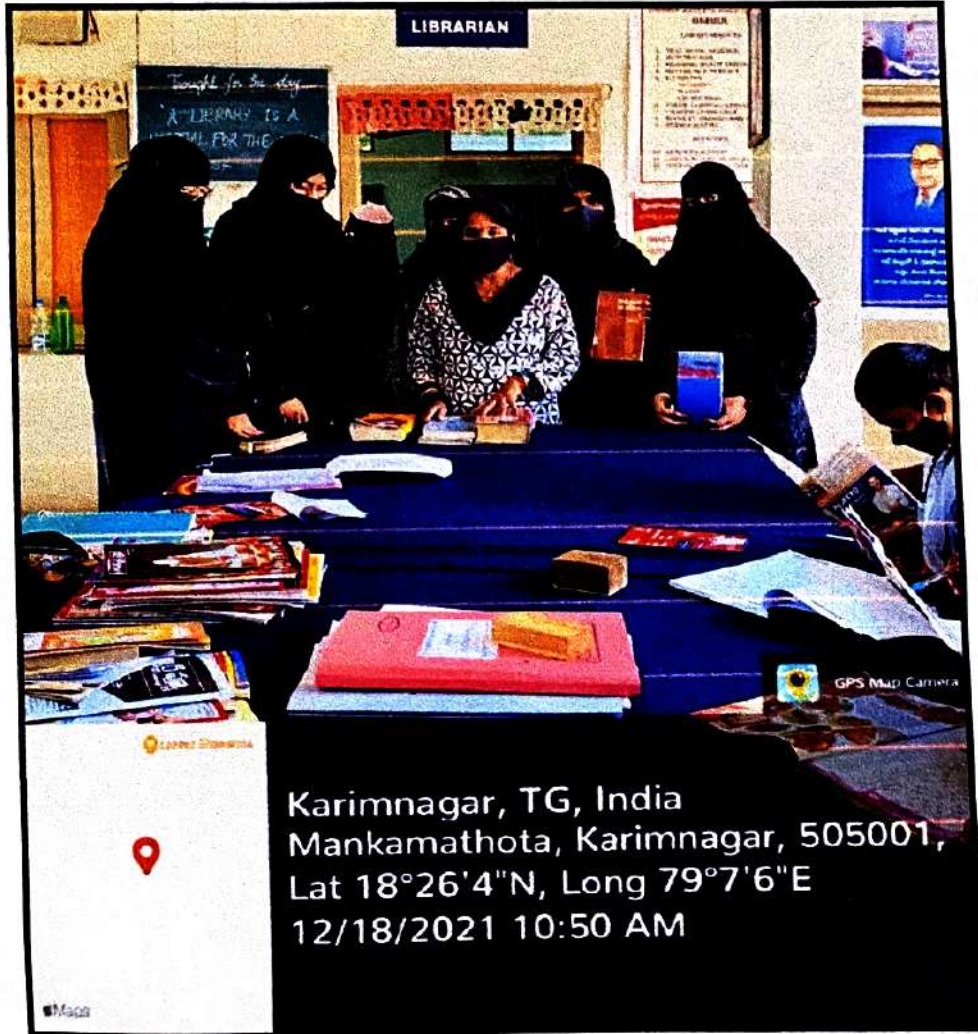
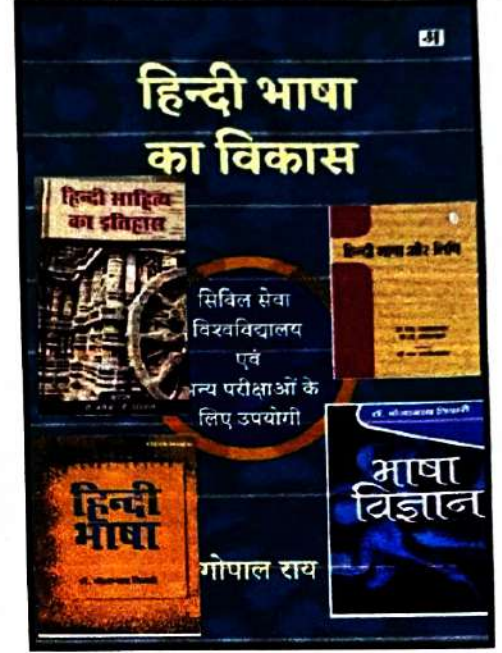
हिन्दी साहित्य का इतिहास. डॉ.नगेन्द्र, डॉ. हरदयाल

हिन्दी भाषा विज्ञान. डॉ. भोलानाथ तिवारी

हिन्दी भाषा और लिपि प्रो. एच. पदमनाभन, जी. सीतालक्ष्मी

हिन्दी भाषा. डॉ. भोलानाथ तिवारी

हिन्दी भाषा का विकास - गोपाल राव



छात्राओं की अनुभूति एवं अनुभव

शासकीय डिग्री कलाशाला महिला करीमनगर ज़िला के छात्राएँ हैं। उच्च शिक्षा आयोग तेलंगणा के प्रोत्साहन से सं 1-2022 का जिज्ञासा सह शिक्षा प्रणाली के अंतर्गत हम हिन्दी भाषा की बोलियाँ शीर्षक से परियोजना कार्य ली। इस योजना कार्य से हम अत्यंत प्रसन्न है क्योंकि, हमारी राष्ट्रभाषा हिन्दी भारतवर्ष को सर्वव्यापी सार्वजन-गण मानस, की आम भाषा साथ-साथ स्वर्णिम साहित्य की मानक भाषा भी है इसलिए, हम इस मधुरमातृभाषा की व्युत्पत्ति और उनकी बोलियों के बारे धपत्र निकलना हमारा सौभाग्य मानते हैं। हमारी मनोकामना यह है कि हिन्दी भाषा और भी जनमानस भाषा बनजाएँ देश की क्ता और अखंडता में अपना योगदान सर्वोपरि सर्वव्यापी सर्वत्र करते रहे। इस लिए यह शोधपत्र हमारे प्राध्यापिका जी सुश्री बोज्ज देवि जी की सूचनएँ सहयोगिता से यह शोधपत्र निकाले हैं यह प्रति किसी पुस्तक या निबंध का प्रतिलिपि एवं नक़ल नहीं। यह धपात्र प्रति को हमारे हिन्दी विभाग को समर्पित कर रहे हैं।



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(II-MBZC)



Subia Tahreem-
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(II-BZCS)



Romana Raheem-
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Zeba Fathima-
(II-BA)

नाम :- अमरीन

H.T.NO :- 20077164610003

विषय :- मदर टेरेसा, मिताली
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आराती ग्राहा।



नाम :- सुमंश खमर

H.T.No :- 20077164572016

विषय :- कल्पना चावला, अनिया
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साइना नेहवाल,



नाम :- निगार खानम

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नाम :- लुबना फिजा

H.T.NO :- 20077164445077

विषय :- अंजली गुप्ता, एम.फातीमा
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दुर्गा बनर्जी।



द्वारा प्रस्तुत

सोफिया नौशीन
716415468066



अहेला शाजमीन
716415468075



अमीरउन्नीसा तालिया

349164203



खदीजा कौसर्व

716415441027

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छात्रों का विवरण

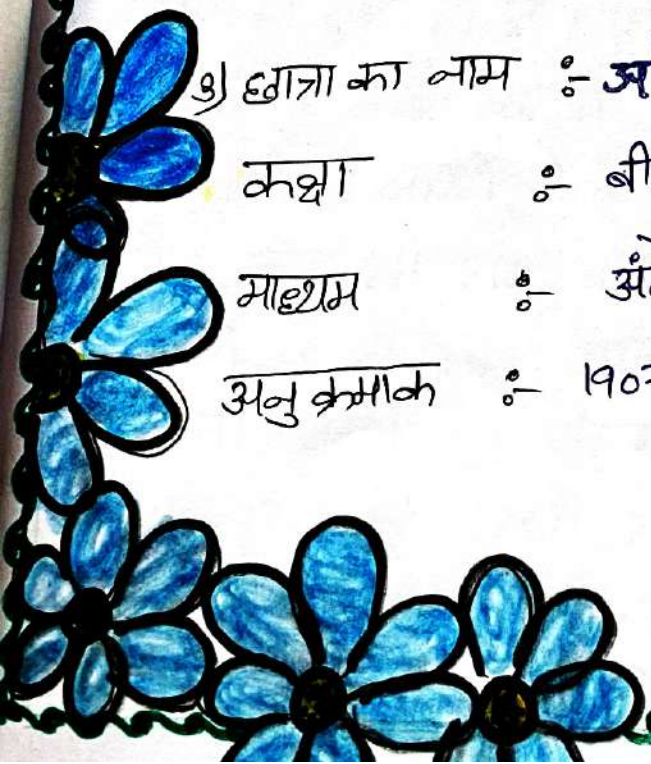
1) छात्रा का नाम :- जी कविशा
 कक्षा :- बी.एस.सी (एं. पी. सीयस)
 III वर्ष
 माध्यम :- अंग्रेजी
 अनुक्रमांक :- 19077164468043



2) छात्रा का नाम :- ओ. श्रीजा
 कक्षा :- बी एस सी (एं. एचडी सीयस)
 III वर्ष
 माध्यम :- अंग्रेजी
 अनुक्रमांक :- 190771644670



3) छात्रा का नाम :- आ. नखदा
 कक्षा :- बी एस सी (एं पी सीयस), III वर्ष
 माध्यम :- अंग्रेजी
 अनुक्रमांक :- 19077164468084



2EDIT
 GP
 RAD
 TTE
 GRA
 CPA

छात्रों का विवरण

1. छात्र का नाम : ज़ेबा फ़ातिमा
कक्षा : बी.ए (2nd year)
मध्यम : अंग्रेजी
अनुक्रमांक : 17077164129035
2. छात्र का नाम : नमीरा नाशीन
कक्षा : बी.ए (2nd year)
मध्यम : अंग्रेजी
अनुक्रमांक : 20077164129038
3. छात्र का नाम : बी. लक्ष्मा भवानी
कक्षा : बी.ए (2nd year)
मध्यम : अंग्रेजी
अनुक्रमांक : 20077164129011
4. छात्र का नाम : समीना मिर्जा
कक्षा : बी.ए (2nd year)
मध्यम : तेलुगु
अनुक्रमांक : 20077164129536



Ray

जिज्ञासा परियोजना कार्य 2021-2022

शीर्षक : हिन्दी की वोलियाँ (Dialects of Hindi)

जिज्ञासा छात्राओं का परियोजना कार्य 2021-2022

छात्राएँ :-

| | |
|------------------|--|
| १ सुविधा तहरीर | II BZC (शीर्षक, उपक्रमणिका, लिपि) |
| २ शैमाना रहस्य | II BZC (परिकल्पना, लक्ष्य, परिधियाँ, पक्ष) |
| ३ इफतखरिसा साफ़ि | II mBZC (वर्तिका संकरण, विरलक्षण, वृत्तान्त) |
| ४ शीमा अफ़नन | II BZC D (उद्योग विकास वोलियाँ) |
| ५ गुहा | II mBZC (शोध कार्य के प्रतिफल) |
| ६ जैबा कातमा | II BA (प्रतिफल मुद्रित आधार) |

सुधी सैथी ब्रिकु :
सुधी बौज्ज रमादेव
हिन्दी आचार्य
शासकीय डिग्री कलाशाला मर्दिना करीमनगर
(हिन्दी विभाग)

परियोजना कार्य का शीर्षक: समाज सुधारक के रूप में संत कबीर दास

Santh kabirdas ji as a social reformer.

हिन्दी विभाग (Department of Hindi)

गिज्ञास छात्र परियोजना कार्य : 2018-2019

छात्रों के नाम :

- १ नैहा तहलीन - IBSE (शीर्षक, उपक्रमणिका परिकल्पना)
- २ उमाम हागरा कतिमा - IMPES (नक्ष्य परिधि, पद्योक्ति परिसीतिया)
- ३ Nishath Farheen - IBZC (इत्तांशमेकरण, विश्लेषण जीवन)
- ४ वि. साइ स्नेह - IBcom CA (समाज सुधारक, प्रतिफल)
- ५ नागरिन - IBZCA (निष्कर्ष, मुद्रित आधार)

संशोधिका (mentor)

वोडन समावेश हिन्दी आचार्या
शासकिय डिग्री कम्पारान्ना मीहन्ना कन्ठ

(हिन्दी विभाग)

Jignasa Project work - I 2018-19

परियोजना कार्य का शीर्षक: समाज सुधारक के रूप में संत कबीर दास

Sant Kabir Das ji as a Social reformer.

हिंदी विभाग (Department of Hindi)

जिज्ञासा क्षेत्र परियोजना कार्य = 2018-2019

क्षेत्रों के नाम :

1. नैदा तहलीन - IBSC (शीर्षक, उपक्रमणिका, प्रतिकल्पना)
2. अमाम हाजरा कतिमा - IMPCS (नक्षत्र परिचय, पद्धति परिचय)
3. Nishath Farheen - IBZC (दत्तशेखर, विद्वान जीवन)
4. वि. साइ स्नेह - IBCCM CA (समाज सुधारक, प्रतिफल)
5. नागरिन - IBZCA (निष्कर्ष, मुद्रित आधार)

संश्लेषिका (mentor)

सुधी बोज्ज रमाशेवि हिंदी आचार्य
शासकीय डिग्री कलाशाला महेला वारीमनगर

(हिंदी विभाग)

जिज्ञासा परियोजना कार्य 2021-2022

शीर्षक: हिंदी की बोलियाँ (Dialects of Hindi)

जिज्ञासा क्षेत्रों का परियोजना कार्य 2021-2022

क्षेत्रों :-

1. सुविधा तहरीन II BZC (शीर्षक, उपक्रमणिका, लिपि)
2. शैमाना शहीम II BZC (परिकल्पना, लक्ष्य, परिधि, पद्धति)
3. इमफतुलिसा साकि II MBZC (दत्तशेखर, विद्वान जीवन, वृत्त)
4. शीमा अफनन II BZC (उद्योग विकास बोलियाँ)
5. गूदा II MBZC (शीर्षक, उपक्रमणिका, प्रतिफल)
6. जैवा कतिमा II BA (प्रतिफल मुद्रित आधार)

संश्लेषिका :

सुधी बोज्ज रमाशेवि

हिंदी आचार्य

शासकीय डिग्री कलाशाला महेला वारीमनगर

(हिंदी विभाग)

| S.no. | IBA (प्रथम वर्ष) | | Submitted or not |
|-------|--------------------|------------------|------------------|
| | Student name (नाम) | शीर्षक TOPIC | |
| 1. | | | |
| 1 | B. Supriya | वाजार दर्शन | ✓ |
| 2 | Soumya | चरित्र संग्रह | ✓ |
| 3 | Sarika | कारोना | ✓ |
| 4 | Laxmi Bhavani | पर्यावरण प्रदूषण | ✓ |
| 5 | Nishma Parvati | वाजार दर्शन | ✓ |
| 6 | Sufia Tazreen | चरित्र संग्रह | ✓ |
| 7 | Nismaravani | कारोना | ✓ |
| 8 | Sadia | कारोना | ✓ |
| 9 | Pare Tarammam | कारोना | ✓ |

IBCOM

| | | | |
|----|-------------------|---------------|---|
| 1 | G. Navang | चरित्र संग्रह | ✓ |
| 2 | md. Nazra Tafseer | शाब्दी | ✓ |
| 3 | Affia Mahveen | वाजार दर्शन | ✓ |
| 4 | Shamsi | वाजार दर्शन | ✓ |
| 5 | Nisra | चरित्र संग्रह | ✓ |
| 6 | Wajidath Fathima | चरित्र संग्रह | ✓ |
| 7 | Vaishnavi | चरित्र संग्रह | ✓ |
| 8 | Shabang | चरित्र संग्रह | ✓ |
| 9 | N. Monisha | चरित्र संग्रह | ✓ |
| 10 | Uma Mahesh | शाब्दी | ✓ |
| 11 | Hafsa Fathima | कारोना | ✓ |
| 12 | P. Anusha | कारोना | ✓ |
| 13 | Shabnoor | कारोना | ✓ |
| 14 | Nazneen Begam | Corona virus | ✓ |
| 15 | Sania Masood | शाब्दी | ✓ |
| 16 | Salma Khanam | संज्ञा | ✓ |
| 17 | Sania Jabbarum | संज्ञा | ✓ |
| 18 | Saniakorain | संज्ञा | ✓ |

papers Submitted to Dept of Hindi

IBSC. द्वितीय वर्ष

| S.no. | छात्र का नाम | शीर्षक (TOPIC) | Weather Sub |
|-------|----------------|----------------|-------------|
| | | | or not |
| 1 | P. Soumya | स्वच्छ भारत | ✓ |
| 2 | Umme Hadig | स्वच्छ भारत | ✓ |
| 3 | Hafsa Shireen | स्वच्छ भारत | ✓ |
| 4 | Roha Fathima | स्वच्छ भारत | ✓ |
| 5 | Fariyal | स्वच्छ भारत | ✓ |
| 6 | N. Niamani | स्वच्छ भारत | ✓ |
| 7 | Lat. Mounika | स्वच्छ भारत | ✓ |
| 8 | Bhaya Sai | स्वच्छ भारत | ✓ |
| 10 | Nisrath Sadiya | कारोना | ✓ |
| 11 | Misha | कारोना | ✓ |
| 12 | Alicha Mumtaz | कारोना | ✓ |
| 13 | Simra | महा न्यायचक्र | ✓ |
| 14 | Soumya Fathima | कारोना | ✓ |
| 15 | Afreer | कारोना | ✓ |
| 16 | Osifa | कारोना | ✓ |
| 17 | O. Navvada | कारोना | ✓ |
| 18 | Supriya | कारोना | ✓ |

IBCOM

| | | | |
|---|------------------|---------|---|
| 1 | Hazra Bee | आदि काल | ✓ |
| 2 | Sankalpam | आदि काल | ✓ |
| 3 | Alicha Mumtaz | आदि काल | ✓ |
| 4 | Nuzhat Hummi Sai | आदि काल | ✓ |
| 5 | Aliya Jabbarum | आदि काल | ✓ |
| 6 | Sankalpam | कारोना | ✓ |
| 7 | Salwa | कारोना | ✓ |

IBSC

| | | | |
|---|-----------------|------------------|---|
| 1 | Laxmi Prasad | पर्यावरण प्रदूषण | ✓ |
| 2 | O. Prasthi | पर्यावरण प्रदूषण | ✓ |
| 3 | Javaria Yasmeen | पर्यावरण प्रदूषण | ✓ |

Papers Submitted to Hindi Dept

| S.NO. | Name of the Student | class | Topic |
|-------|---------------------|---------|----------|
| | T. | | |
| | To Lavanya | Bcom CA | युरेनियम |
| | Alia Tabassum | Bcom CA | " |
| 716 | Nausheen Suthana | Bcom CA | " |
| | Aysha Suthana | Bcom CA | " |
| 711 | Nazia Fathima | Bcom CA | " |
| | Sumayya Nazrin | Bcom CA | " |
| 716 | Nishath Begam | Bcom CA | " |
| | Firdose Anjum | Bcom CA | युरेनियम |
| | Saqida Afreen | BTB | युरेनियम |
| 716 | | | |
| | | | |
| | | | |
| | | | |
| 160 | Nazia Tabassum | BZCA | कबीरदास |
| | Asra | Bcom CA | " |
| | Sonali | Bcom CA | " |
| 160 | Ammara | BSc MPC | " |
| 160 | G. Maheshwari | BSc MPC | " |
| | Rafia Firdose | BZCA | " |
| | Sana Sayeed Firdose | BZC | " |
| | Shagufha Tabeen | BZCA | " |
| | Kavina Abbas | Bcom CA | " |
| | Sabiha Kanam | BZCA | " |
| | Aysha Umrain | BSc BZC | " |
| | Ayshiya | BSc MPC | " |
| | G. Sai Sneha | Bcom CA | " |
| | Afreen | Bcom CA | " |
| | Munazza | BSc MPC | " |
| | Umam Nazra Fathima | BSc MPC | " |

Prof. (Dept of Hindi) T.S.

Prof. (Dept of Hindi) T.S.

| S.NO. | Name of the Student | class | Topic | Date |
|-------|----------------------|----------|----------|----------|
| | | | | |
| 2 | Shirvan Fathima | BZC | युरेनियम | 7/8/19 |
| 2 | Neha Tahaleel | BZC | युरेनियम | 7/8/19 |
| 3 | Sana Sayeed Firdouse | BZC | " | 7/8/19 |
| 4 | Shagufha Jahan | BZC | " | 7/8/19 |
| 5 | Nahid Fathima | BZCA | " | 7/8/19 |
| 6 | Akhila Suthana | BZC | " | 7/8/19 |
| 6 | G. Maheshwari | BSc MPC | " | 20/8/19 |
| 7 | D. Maya | BSc MPC | " | 20/8/19 |
| 8 | Nishath Suthana | Bcom Gen | " | 20/8/19 |
| 10 | Masitha Firdose | Bcom Gen | " | 20/8/19 |
| 12 | Muskan | Bcom Gen | " | 21/10/19 |
| 12 | Umema Shaifa | Bcom Gen | " | 21/10/19 |
| 13 | Ateega Kanam | Bcom Gen | " | 18/11/19 |
| 18 | D. Swathi | Bcom CA | युरेनियम | 19/11/19 |
| 25 | | | | |

Prof. T.S.

Prof. (Dept of Hindi)

परियोजना कार्य PROJECT WORK.

Sub: HINDI 2018-2019

| S.no. | Name of the Student. | class | Topic | |
|-------|------------------------|---------|----------|----------|
| 1 | Hazrabee | Bcom CA | सुरेनियम | 7/8/19 |
| 2 | Nuzzahtunnisa | Bcom CA | " | 7/8/19 |
| 3 | K. Arthi | Bcom CA | " | 7/8/19 |
| 4 | Saravkousar | Bcom CA | " | 7/8/19 |
| 5 | Bushra Sadia | BZC | " | 7/8/19 |
| 6 | Mahek Fathima | Bcom CA | " | 7/8/19 |
| 7 | Sameena Begam | Bcom CA | " | 7/8/19 |
| 8 | Safa Kousar | BSC | " | 7/8/19 |
| 9 | Nisha | BZCA | " | 7/8/19 |
| 10 | Misba Fathima | Bcom CA | " | 7/8/19 |
| 11 | Sankalpam | Bcom CA | " | 7/8/19 |
| 12 | Noor-ul-ain- Saba | Bcom CA | " | 7/8/19 |
| 13 | Aafia Kousar | Bcom CA | " | 20/8/19 |
| 14 | G. kavitha | Bcom CA | " | 20/8/19 |
| 15 | Atika Mumtaz | Bcom CA | " | 20/8/19 |
| 16 | Sayyada Umm-e-Amraan | Bcom CA | " | 20/8/19 |
| 17 | Shifa Nurin | Bcom CA | " | 20/8/19 |
| 18 | Mahekash Mahavin | Bcom CA | " | 20/8/19 |
| 19 | Malika Nurin | Bcom CA | " | 20/8/19 |
| 20 | Humera Samia | Bcom CA | " | 20/8/19 |
| 21 | Fariisa Jannath | Bcom CA | " | 20/8/19 |
| 22 | Niksath Firadouse | BZC | " | 21/10/19 |
| 23 | Anjum Bhanu | BZC | " | 21/10/19 |
| 24 | K. Meenakshi | Bcom CA | " | 21/10/19 |
| 25 | N. Susmitha | Bcom CA | " | 21/10/19 |
| 26 | K. Rajitha | Bcom CA | " | 21/10/19 |
| 27 | M. Spoorthi | BA-HEP | " | 21/10/19 |
| 28 | Javeria Shazmeen | | अंगन परत | 18/11/19 |
| 29 | O Preethi | BA-HEP | सुरेनियम | 18/11/19 |
| 30 | Laxmi Prasanna | BA-HEP | " | 18/11/19 |
| 31 | Afrin | BSCBZC | " | 18/11/19 |
| 32 | Misba Tabassum | BSCBZC | " | 18/11/19 |
| 33 | Shifa Shazmeen-Hussain | BA-HEP | " | 18/11/19 |

Rajy TA

छात्राओं का कक्षा परियोजना कार्य

2017-2018

BA, BCom, BSC

133

| Sl. No. | छात्रा का नाम | शीर्षक | दिनांक |
|---------|-------------------|---------|-----------|
| 8083 | ज. नवीन mpc | कवीरदास | 1-3-2018 |
| 1001 | अक्षीका BCom CA | मीराबाई | 7-3-2018 |
| 1039 | N. रजिता Bcom CA | | 7-3-2018 |
| 2051 | K. गोरी Bcom CA | | 7-3-2018 |
| 2084 | नमीना BcomCA | | 7-3-2018 |
| 2116 | निमिता BcomCA | | 7-3-2018 |
| 2019 | डिंपल कश्यप Btbc | | 7-3-2018 |
| 2015 | इकीकुमारी Btbc | | 27-3-2018 |
| 2026 | सना Btbc | | 27-3-2018 |
| 5502 | अपरा संजुम BZC | | 27-3-2018 |
| 5055 | N. स्वपुन BZC | | 27-3-2018 |
| 9012 | ज. साहित BZC | | 27-3-2018 |
| 9015 | J. Navya Sree BZC | | 27-3-2018 |
| 5531 | मुरकाव BZC | | 27-3-2018 |

(दिनांक विभाग)

GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE
A MINI PROJECT
ON
STUDENT DATABASE



BY

| | |
|-----------------------|------------------|
| AMEERA FIRDOUSE | (16077164609003) |
| AYISHA SYED WAJID ALI | (16077164609005) |
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UNDER SUPERVISION

M.KALPANA

LECTURER IN COMPUTER SCIENCE & APPLICATIONS

ACADEMIC YEAR 2018- 2019

Computer Science 125

Microsoft Access Project

Due Date : Tuesday, March 4th, 11:59 PM

50 points

In this project, you will use *Microsoft Access* to create two databases : a student database and a coffee database.

I. The Students Database

Table Structure

First off, create a folder named *Databases* on your thumb drive.

We will be setting up a table structure to support a 15-record, 11-field database with the field names and data types listed below.

- ID (autonumber & primary key)
- Last Name (text)
- First Name (text)
- Street Address (text)
- City (text)
- State (text)
- Zip Code (number)
- Birthdate (date/time)
- Age (number)
- Married? (yes/no)

Choose *one* other field of your choice (email address, web page address, phone number, social security number, etc.).

Setting up your Table Structure

1. Now, in our class folder, copy the *MS Access* icon for *Students* and paste it into your folder named *Databases* on your own drive. Next, open up this database. If a security warning window pops up, close it.
2. In the main database window, the *Tables* category should be selected. Look in the far left column, and be sure *Tables* is selected from the dropdown box. An icon for *Table1* should now appear under the *Tables* category. Doubleclick the icon for *Table1* to open this table. You should currently have a five record, seven field database.
3. Now, Select *Design View* from the *View* dropdown box. The *View* dropdown box is just below the *Office* home button. We will use *Design View* to set up the structure of your database file. The cursor will be at the first field.
4. Seven field names & types have already been set up. You need to add the three additional field names listed above after *Zip Code* as well as the final field name of your choice. So, click in the field name box below *Zip Code*.
5. Type in each field name and then tab over to *Data Type*. Choose the field type from the arrow options (or you can just type the first letter of the type). Hit the tab key to move over to the next column. You can leave the *Description* column blank.

Enter the other field names and their field type. Be sure you use the data type that is listed in parentheses above.

Return to the leftmost column of the first field name, *ID*, and right click. Be sure this first field is selected as your primary key.

6. At a later time, you may want to modify your table design. That is, add or delete a field, or change a field type. To do this, simply return to the *Tables* category, click on your table and click on *Design*. Re-save your new design, and then your changes will be in effect in *Open* mode.

Entering Your Data

Open *Table1* and enter your data directly into the table. You can make up fictitious data, but it must be reasonable. One of the names must be your own name. Make up ages that range from 4 to 80 and include at least one who is over 40 and is married. (We'll need that for a query.) Be sure and save when you're done. Your data can be real or fictitious. If you need to enter a state not available among your selections, simply type it into the field box. **Make sure you have a total of 15 records when you're done.**

Report

Now, select the Create Tab & select the Report Wizard icon Using the Report Wizard, create a report on your data. Choose all fields except Zip Code and ID, using the arrow >.

Move on to the next window in the wizard by clicking Next. In the grouping window, just click next. In the sorting window, you want to sort the records in descending order with last name as the primary sort key and first name as the secondary sort key. You would click on the Ascending button to change to descending order. Choose Tabular and Landscape at the next window, and choose any print style you like on the style window. For the title, use "Report 1 by <your name>."

Queries

To create a query, select the Create tab, and then the **Query Design** option. Select your Table1 as the table to perform the query on by selecting it followed by the Add button. Close out this window when done.

In the first three field columns of the Query Design window, use the black down arrows to select Last Name, Age, and Married? in that order. Save this file as Query1 and then close out this window.

Now, in the Category dropdown box on the left, select Queries from the dropdown box. Your Query1 icon should be listed there. Open it up to see the results of your query just completed.

Create another query to print the same information as the first query, but choose **ONLY** students who are older than 8 and are married. Use the Criteria field to enter these restrictions (simply type > 8 under Age and a Yes under Married?). Save this query as Query2.

Create a third query to print out each last name by minimum age. To set this query up, use last name and age as your field boxes. In the Criteria field, do a right click and select totals. A Total row should now appear. In the Total field for Age, select Min and select ascending for your sort. Save this query as Query3.

Create a fourth query which displays the overall average of everyone in your database. To set this query up, use only age as a field box. In the Criteria field, do a right click to select Totals once again. In the Total field for Age, select Avg. While this field is selected, select View, Properties from the menu bar. Under the General tab, choose Standard formatting and two decimal places. Save this query as Query4.

Mail Merge

A mail merge allows us to merge our database of students with a form letter in word processing so that we can quickly personalize the same letter to everyone in our database. To set up your mail merge, open a blank word processing document in *Microsoft Word*.

Type up a short one-paragraph letter with the current date which can be used to announce an upcoming event or party to a large audience. As you type your letter, leave blank the spots which you want to be personalized with data from your database. The items that you will be personalizing include the first name, last name, street address, city, state, and zip in the recipient's address and the first name in the salutation (i.e., following the "Dear"). If you want to personalize some items directly in the text body, that is fine.

When you're done typing your letter, select Mailings, Start Mail Merge, Step by Step Mail Merge Wizard from within *MS Word*. This option provides us with a quick tutorial in the right hand column of how to do a mail merge. First, make sure the radio button for using letters is selected and then click next at the bottom of the column.

Next, at step 2, select use the current document and click next. At step 3, select use an existing list and then double click on the Browse option. At the bottom of the Select Data Source window, go to the window labeled "Files of Type" and choose "Access Databases". Next, go to your Look In box at the top of the window and open your database from your thumb drive. After you've found and selected your database, you need to select which table within your database you want. We've only got a Table1, so it will go ahead and pop up a mail merge recipients window. Select OK at the bottom of this window and then move on to step 4.

You're now ready to personalize your letters with the data in your database. Just click on one of the items in the right hand column within your letter that you want personalized from your database. The "More items" option lets you access your individual field names. Go ahead and add all of them before you close out the window of field names that pops up. Go back and add proper spacing and punctuation within all fields. For example, within an address you would have something like :

<<City>>, <<State>> <<Zip Code>>

When you're done typing your letter, add one piece of clip art to your letter. Save your letter as "Form Letter."

II. Valle Coffee Database

1. Create a new database. Name it Valle Products.
2. Create a table using the design properties listed below. Make sure you select Product Code as your primary key.

| Field Name | Data Type | Description | Field Size | Other Properties |
|--------------|-----------|-----------------------------|------------|--------------------------|
| Product Code | Text | Primary Key | 4 | |
| CoffeeCode | Text | | 4 | |
| Price | Currency | Price for this product | | Fixed Decimal Places : 2 |
| Decaf | Text | D if decaf, Null if regular | 1 | Default Value : D |
| BackOrdered | Yes/No | Back-ordered from supplier? | | |

3. Specify ProductCode as the primary key, and then save the table as Product.
4. Add the product records shown below to the Product table.

| ProductCode | CoffeeCode | Price | Decaf | BackOrdered |
|-------------|------------|-------|-------|-------------|
| 2316 | JRUM | 8.99 | | Yes |
| 9754 | HAZL | 40.00 | D | No |
| 9309 | COCO | 9.99 | D | No |

5. Make the following changes to the structure of the Product table:
 - (a) Add a new field between the CoffeeCode and Price fields using these properties:
Field Name: WeightCode
Data Type: Text
Field Size: 1
 - (b) Move the BackOrdered field so that it appears between the WeightCode and Price fields.
 - (c) Saved the revised table structure.
6. Update the Product table with these WeightCode values for the 3 records: A for ProductCode 2316, A for ProductCode 9309, and E for ProductCode 9754.
7. Create a report with the Report Wizard. When the Report Wizard asks, What Sort Order do you want for your records?, select the Price field from within the dropdown box. Give the report an appropriate title. Close out your database when you're done.

8. Now, let's work with another database that is set up with the exact same design. Go to the Database folder on our class server and select (but not open) the "Additional Coffee" database icon. Right click on this icon and copy this database into the clipboard. Now, go into your current database folder on thumb drive, and past this icon. (That's a really neat and easy way to copy any file by the way!)
9. Open up the table file within this database, and take a look at the data that has been added.
10. Using a query, accomplish the following. Save each one appropriately as Querya through Queryh.
 - (a) Display all fields for the products that have a WeightCode of E.
 - (b) Display the ProductCode, CoffeeCode, Price, and BackOrdered fields for all back-ordered coffee.
 - (c) Display the ProductCode, CoffeeCode, and Price for all decaf coffee.
 - (d) Display the ProductCode, CoffeeCode, and Price for all products whose CoffeeCode begins with an M. (Hint: Use the wildcard character *. That is, M*.)
 - (e) Display the ProductCode, CoffeeCode, and Price for all products whose Price is more than \$45.
 - (f) Display the ProductCode, CoffeeCode, WeightCode, and Price for all products whose WeightCode is A and whose price is \$9.99 or more.
 - (g) Display the ProductCode, CoffeeCode, and Price for all products whose CoffeeCode begins with COL.
 - (h) Display the ProductCode, CoffeeCode, WeightCode, and Price for all products whose WeightCode is C or whose CoffeeCode is IRSH. (Hint: Put the C in the Criteria: line for WeightCode and the IRSH in the or: line for CoffeeCode.)
11. Paste your eight query files above (Querya -- Queryh) into a MS Word document. Type in appropriate headings above each query. Save this file as one document.

Submit

Email me each of these items:

1. Your "Students" database
2. Your "Additional Coffee" database
3. Your *MS Word* document with your eight query files
4. Mail Merge Letter by <your name> (your form letter)

GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE
A MINI PROJECT
ON
GMAIL ID ACCOUNT CREATION



BY

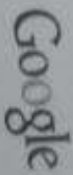
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UNDER SUPERVISION

M.HARI KRISHNA

LECTURER IN COMPUTER SCIENCE & APPLICATIONS

ACADEMIC YEAR 2018-19



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2

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Access apps, check notifications and edit your account

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Your new email address is mangkalpana@gmail.com

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GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE
A MINI PROJECT
ON
EMPLOYEE DATABASE



BY

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UNDER SUPERVISION

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LECTURER IN COMPUTER SCIENCE & APPLICATIONS

ACADEMIC YEAR 2019-20

Project 5 - Relational Databases (Access)

Project Objective

To operate efficiently and to remain competitive, it is essential for a company to manage its data appropriately. Databases enable quick access to critical information; provide secure storage for sensitive data, and offer analysis/reporting tools for real-time decision making. In addition, databases also play an important role with a company's presence on the Internet. Web-based databases have the ability to store information pertaining to customers, employees, competitors, online orders, and buying habits. With this in mind, you realize it is a necessity to integrate a database into your existing IT infrastructure.

In this project you will learn to use Microsoft Access to create a relational database, which is a type of database that has data organized into related tables. This database will include tables that store the most common types of information pertinent to a corporation:

- Employees
- Customers
- Products
- Orders

In addition to the tables, you will also setup the relationships between tables, and design input forms and queries (with formulas) plus create reports (also with formulas).

Project Overview

This project has been organized into 7 different parts:

1. Creating a **Flat File** database in Excel
2. **Importing existing data** from an Excel Spreadsheet
3. Creating the Database **Tables**
4. Establishing Table **Relationships**
5. Generating **Forms** to Input Data
6. Building **Queries** to Access Specific Data
7. Creating a **Report**

Part 1 – Creating a Flat File Database

In part 1, you will create a flat file database for storing some employee information. Follow the instructions and samples listed below.

| No. | Title | First Name | Last Name | Gender | Job Position | Salary | Address | City | State | Postal Code |
|-----|-------|------------|------------|--------|----------------|------------|--------------------------|------------------------|-------|-------------|
| 1 | Mr. | Mike | Crowley | M | CEO | \$ 100,000 | 401 Operating Systems Dr | Los Angeles | CA | 90001 |
| 2 | Ms. | Christine | Compaes | F | Office Manager | \$ 45,000 | 412 Candy Cane Ln | El Segundo | CA | 90245 |
| 3 | Miss | Lisa | Matczynski | F | Technologist | \$ 75,000 | 30 Jarring St | Hermosa Beach | CA | 90254 |
| 4 | Mr. | Lance | Wester | M | VP | \$ 90,000 | 530 Animation Way | Laguna Beach | CA | 92653 |
| 5 | Ms. | Tina | Gregory | F | VP | \$ 95,000 | 88 Green Dr | El Segundo | CA | 90245 |
| 6 | Ms. | Natasha | Devi | F | Analyst | \$ 30,000 | 1980 Web Way | Paris Vardes Peninsula | CA | 90274 |
| 7 | Mr. | Alan | Kate | M | Technologist | \$ 80,000 | 22 Enterprise St | Los Angeles | CA | 90022 |
| 8 | Mr. | Tom | Sniper | M | Analyst | \$ 40,000 | 2400 Alan Ln | Santa Monica | CA | 90405 |
| 9 | Mr. | Richard | Sanster | M | Technologist | \$ 55,000 | 11 Solution Dr | Woodland Hills | CA | 91371 |
| 10 | Ms. | Emily | Covaglio | F | Analyst | \$ 30,000 | 23 Pine St | Yorba | CA | 91205 |

1. Open **Microsoft Office Excel 2010**.
2. Rename Sheet1 to **Employees**.
3. Delete Sheets 2 & 3.
4. In cells A1:K1, merge and center the following title: **Employees for Your Company**. Replace *Your Company* with your company's name. Format it how you want. You may want to change the size, weight, and color.
5. In cells A2:K2, enter the headings shown in Figure 7. They are: **No., Title, First Name, Last Name, Gender, Job Position, Salary, Address, City, State, Postal Code**.
6. Beginning in row 3, enter your own information for 10 employees. Make sure you:
 - a. have 5 female employees and
 - b. only create 5 different job positions.
7. Format the table of employees, including the headings in row 2. Make sure you change the **Salary** column to currency and do not show a decimal point. You may format the colors and such however you wish.
8. Select the cells A2:K12. In the *Formulas* tab, select the **Define Name** button. For the *name* enter **employeelist**, and press the **OK** key. This will name the range of cells that contain your field headers and data, so that you can easily refer to it later here and in other projects down the road.
9. **Save** your workbook as **lastname_firstname_excel_database.xlsx**

Part 2 – Importing data from an Excel Spreadsheet

In part 2, you will import data from the database created in part 1 into your Access database. Follow the instructions and samples listed below.

1. Open **Microsoft Office Access 2010**.
 - a) Click on **Blank Database**.
 - b) Under the *Blank Database* section on the far right in the *File Name* textfield, enter **lastname_firstname_access**. Click on the **Browse** icon to change the location to save your file. It will append .accdb. The *Save as type* is **Microsoft Access 2007 Databases (*.accdb)**.
 - c) Click the **Create** button.
2. From the top, click on the **External Data** tab. Click on the **Excel** button.
3. In the *Get External Data* window, use the **Browse...** button to locate and select the excel file you just created in part 1. Select the **Import the source data into a new table in the current database** option. Click the **OK** button.
4. In the *Import Spreadsheet Wizard* window:
 - a) Select the **Show Named Ranges** radio button. Select the range **employeelist**, which is the name range you created in your Excel project. Select the **Next >** button to go to the next step in the wizard.
 - b) Check the box **First Row Contains Column Headings** such that there is a checkmark there. Click the **Next >** button.
 - c) Select the **No** column in the table. Under *Field Options*, change the *Field Name* to **EmployeeNum**. Click the **Next >** button.
 - d) Select the **Choose my own primary key** radio button. Using the pull-down, select the **EmployeeNum** option. Click the **Next >** button.
 - e) **Note:** A primary key field is used to uniquely identify each record in your table.
 - f) For the *Import to Table* textfield, enter **EmployeesTbl**. Click the **Finish** button. Click the **Close** button.
5. Open your **Employees** table in **Design View** by clicking on the **Home** tab. In the upper left corner, click on the **View** pull-down and select the **Design View** option.
6. Delete the **Gender** and **Salary** fields by right clicking on the field row and selecting the **Delete Rows** option. (Another way to delete is clicking on the field row and selecting the **Delete** option under the *Records* section in the *Home* tab.) Click the **Yes** button to permanently delete the selected field.
7. Add a new field to the table by typing **Employee Status** in the first empty cell in the *Field Name* column. Set the *Data Type* to the **Lookup Wizard...** option.
8. In the *Lookup Wizard* window:
 - a) Select the **I will type in the values that I want** radio button. Click the **Next >** button.
 - b) Under *Col1*, type in the following three options in the first three cells: **Full-time**, **Part-time**, and **On-call**. Click the **Next >** button.

c) Checkmark the **Limit To List** checkbox. Click the **Finish** button. You have just created a Lookup Value for the *Employee Status* field.

9. Save your changes by clicking on the Save icon (3.5" disk) in the top left corner of the Access window.
10. Open the EmployeesTbl in the Datasheet View by clicking on the **View** pull-down and selecting the **Datasheet View** option. (If you do not see the **View** pull-down, then click on the **Home** tab and you will see it in the upper left corner.)
11. Add a status to each of your employees in the table. To add a status, you can simply click in the *Employee Status* cell for each employee and utilize the lookup values provided by clicking on the pull-down menu.

| Employee Num | Title | First Name | Last Name | Job Position | Address | City | State | Postal Code | Employee Status |
|--------------|-------|------------|-------------|----------------|--------------------------|-----------------|-------|-------------|-----------------|
| 1 | Mr. | Mike | Crawley | CEO | 802 Operating Systems Dr | Los Angeles | CA | 90009 | Full-time |
| 2 | Mrs. | Christine | Gonzales | Office Manager | 432 Candy Cane Ln | El Segundo | CA | 90245 | Part-time |
| 3 | Mrs. | Lisa | Melazzynski | Technologist | 30 Jimmy St | Hermosa Beach | CA | 90254 | Part-time |
| 4 | Mr. | Garth | Winski | SVP | 550 Animation Way | Laguna Beach | CA | 92653 | On-call |
| 5 | Mrs. | Tina | Gregory | SVP | 88 Geeks Dr | El Segundo | CA | 90245 | Full-time |
| 6 | Mr. | Patrick | Owens | Analyst | 1595 West Way | Palms Verdes Pk | CA | 90774 | On-call |
| 7 | Mr. | Ron | Zula | Technologist | 22 Enterprise St | Los Angeles | CA | 90027 | Full-time |
| 8 | Mr. | Tom | Slipser | Analyst | 2600 Abell Dr | Santa Monica | CA | 90410 | Part-time |
| 9 | Mr. | Richard | Vawter | Technologist | 15 Solution Dr | Woodland Hills | CA | 91371 | Part-time |
| 10 | Mrs. | Emily | Civaglia | Analyst | 25 Pie Pl | Venice | CA | 90295 | On-call |

Note: Your data is automatically saved each time you complete the editing of a record and move on to another record.

12. When finished, close the table by right-clicking on the name **EmployeesTbl** and selecting the **Close** option.

Part 7 -- Create a Report

You will create one report that collects at least one field of data from three of the tables. Formulas will be used to keep a running total and to calculate a grand total for the report. The name of your report will be *lastname firstname created mm/dd/yy*.


You will create a report of Accounts Receivables, in landscape format, using the Reports Wizard. Add formulas for Totals, Running Totals, and a Grand Total. You may want to review the helpful design hints given in Part 4.

| Customer Name | Item Name | Quantity | Retail Price | Total | Running Total |
|--------------------|-------------------------|----------|--------------|-------------------|---------------|
| | | 2 | \$40.00 | \$80.00 | \$80.00 |
| Altenberg | Brownies (half sheet) | | | \$80.00 | \$140.00 |
| Daniels | Cupcakes 1C (dozen) | 3 | \$35.00 | \$105.00 | \$245.00 |
| Marshall | Cupcakes 4-pack (dozen) | 5 | \$18.00 | \$90.00 | \$335.00 |
| Ricki | Brownies (half sheet) | 2 | \$40.00 | \$80.00 | \$415.00 |
| JSC Adams | Cupcakes 1C (dozen) | 10 | \$28.00 | \$280.00 | \$695.00 |
| Waters | Cupcakes 1C (dozen) | 8 | \$26.00 | \$208.00 | \$903.00 |
| Waters | Brownies (half sheet) | 4 | \$40.00 | \$160.00 | \$1,063.00 |
| Grand Total | | | | \$1,023.00 | |

1. Click on the **Create** tab.
2. Click on the **Report Wizard**.
 - a) The fields for your query will be taken from three tables. Add them in the following order:

| Table | Field |
|--------------|--------------|
| CustomersTbl | CustomerName |
| ProductsTbl | ItemName |
| OrdersTbl | Quantity |
| ProductsTbl | RetailPrice |

- b) For viewing the data, select by **OrdersTbl**.
 - c) For sorting, select **CustomerName** in **Ascending** order.
 - d) For the Layout, select **Tabular**.
 - e) For the Orientation, select **Landscape**.
 - f) For the Title, enter *lastname firstname created mm/dd/yy*.
 - g) Select the **Modify** the report's design before clicking on the **Finish** button.
3. Add the **Total** label to your report using the **Label** tool.
 - a) Click on the **Design** tab. In the **Controls** section, select the **Label** icon (Aa).

- b) Draw the label object within the *Page Header* section of the report.
 - c) In the Label box, enter **Total**.
 - d) Adjust the size and location of the new object.
4. Add the **Total** field to your report using the **Text Box** tool.
 - a) In the Design tab in the Controls sections, select the Text Box icon. 
 - b) Draw the field object within the *Detail* section of the report.
 - c) Access created a **Text** label within the *Detail* section. Delete this **Text** object by right-clicking on it and selecting the **Delete** option.
 - d) Select the new Unbound control object. In the *Property Sheet*, select the **Data** tab. Set the *Control Source* property to `=[Quantity]*[RetailPrice]`
 - e) In the *Property Sheet*, select the **Format** tab. Set the *Format* property to **Currency**.
 - f) Adjust the size and location of the new field object as shown in the sample.
 5. Add the **Running Total** objects to the report by adding a **Label** in the *Page Header* section and a **Text Box** in the *Detail* section.
 - a) Repeat steps 3 and 4 you did for the **Total** label and **Total** field.
 - b) Additionally, for the Running Total field object, in the *Property Sheet* in the *Data* tab, set the **Running Sum** property to **Over All**.
 6. Update the **Page Footer** section.
 - a) Remove any objects that are currently in the *Page Footer* section.
 - b) Add a horizontal line to the top of the section. In the *Design* tab in the *Controls* section, use the **Line** option. You can format it by selecting on the *Format* tab.
 - c) Add a **Grand Total** text box. For the *Grand Total* label, change the text to **Grand Total**.
 - d) Select the **Grand Total** field object. In the *Property Sheet*, select the **Data** tab. Set the *Control Source* property to the name of the Running Total field object. For example:
`=[Text15]`

Note: your text number may be different. Check the Name property of the Running Total object on your report to get the correct name.
 - e) In the *Property Sheet*, select the **Format** tab and set the *Format* property to **Currency**.
 7. In the *Report Header* section, change the title of the report to **Accounts Receivable by your name**
 8. Switch to the Report View and verify that your report resembles the sample and that all values are calculated and displayed properly.
 9. Return to the Design View to make any necessary corrections.
 10. Save and close the report.

Submitting the project

1. Your excel file should have one sheet with the flat file database. Your Access file should have one database with four tables (CustomersTbl, EmployeesTbl, OrdersTbl, ProductsTbl), two queries (Orders by Customers Query, Orders by October Query), two forms (CustomerFrm, NewOrderFrm), and one report (*lastname firstname created date*).
2. You need to submit your Access file (*lastname_firstname_access.accdb*) and your Excel file (*lastname_firstname_excel_database.xlsx*). Put them in the same folder.
3. Use a zip program such as 7-Zip and zip them into one file named *lastname_firstname_access.zip*. This is the file that you will submit on Blackboard.
4. Submit your zip file on **Blackboard** (<http://blackboard.usc.edu>) under **Assignments**:
 - a. Click on the **Lab5** assignment.
 - b. Next to *Attach File*, click on the **Browse My Computer** button.
 - c. Find your *lastname_firstname_access.zip* file and click the **Choose** button.
 - d. Click on the **Submit** button in the bottom right corner.

GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE
A MINI PROJECT
ON
VIRTUAL CLASSROOM



BY

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UNDER SUPERVISION

P.SUSHMA

LECTURER IN COMPUTER SCIENCE & APPLICATIONS

ACADEMIC YEAR 2019-2020

1.1 INTRODUCTION TO PROJECT

The Virtual Class Room system is a web based project.

This project is aimed to develop online learning courses.

Developing a virtual classroom system to promote a greater count of students to splurge into the field of Education. It integrates the benefits of a physical classroom with the convenience of a 'no-physical-bar' virtual learning environment, minus the commuting hazards and expenses. It will usher in the immense flexibility and sophistication in the existing learning platform structures, with the perfect blend of synchronous and asynchronous interaction. It provides a means of collaborative learning for the students.

1.2 ORGANIZATION PROFILE

Software Solutions is an IT solution provider for a dynamic environment where business and technology strategies converge. Their approach focuses on new ways of business combining IT innovation and adoption while also leveraging an organization's current IT assets. Their work with large global corporations and new products or services and to implement prudent business and technology strategies in today's environment.

CS Techno's RANGE OF EXPERTISE INCLUDES:

- Software Development Services
- Engineering Services
- Systems Integration
- Customer Relationship Management
- Product Development
- Electronic Commerce
- Consulting
- IT Outsourcing

We apply technology with innovation and responsibility to achieve two broad objectives:

- Effectively address the business issues our customers face today.
- Generate new opportunities that will help them stay ahead in the future.

THIS APPROACH RESTS ON:

- A strategy where we architect, integrate and manage technology services and solutions - we call it AIM for success.
 - A robust offshore development methodology and reduced demand on customer resources.
 - A focus on the use of reusable frameworks to provide cost and times benefits.
- They combine the best people, processes and technology to achieve excellent results - consistency. We offer customers the advantages of:

SPEED:

They understand the importance of timing, of getting there before the competition. A rich portfolio of reusable, modular frameworks helps jump-start projects. Tried and tested methodology ensures that we follow a predictable, low - risk path to achieve results. Our track record is testimony to complex projects delivered within and evens before schedule.

EXPERTISE:

Our teams combine cutting edge technology skills with rich domain expertise. What's equally important - they share a strong customer orientation that means they actually start by listening to the customer. They're focused on coming up with solutions that serve customer requirements today and anticipate future needs.

A FULL SERVICE PORTFOLIO:

They offer customers the advantage of being able to Architect, integrate and manage technology services. This means that they can rely on one, fully accountable source instead of trying to integrate disparate multi vendor solutions.

SERVICES:

CS Techno is providing its services to companies which are in the field of production, quality control etc with their rich expertise and experience and information technology they are in best position to provide software solutions to distinct business requirements.

1.3 PURPOSE OF THE PROJECT

The project is fully integrated with Customer Relationship Management (CRM) solution and developed in a manner that is easily manageable, time saving and relieving one form semi automated.

Developing a virtual classroom system to promote a greater count of students to splurge into the field of Education. It integrates the benefits of a physical classroom with the convenience of a 'no-physical-bar' virtual learning environment, minus the commuting hazards and expenses. It will usher in the immense flexibility and sophistication in the existing learning platform structures, with the perfect blend of synchronous and asynchronous interaction. It provides a means of collaborative learning for the students.

The educational methodology utilized for the concept of the Virtual Classroom (a classroom in an electronic space) reflects asynchronous group communications and collaborative approaches to education and training. The student is an active part of a learning group but proceeds to learn and understand on an individual basis independent of the speed of other learners in the group.

The Virtual Classroom is a teaching and learning environment located within a computer-mediated communication system. The objectives of a Virtual Classroom are to improve access to advanced educational experiences by allowing students and instructors to participate in remote learning communities using personal computers at home or at work; and to improve the quality and effectiveness of education by using the computer to support a collaborative learning process. By collaborative learning is meant a learning process that emphasizes group or cooperative efforts among faculty and students, active participation and interaction on the part of both students and instructors, and new knowledge that emerges from an active dialog among those who are sharing ideas and information.

1.4 PROBLEM IN EXISTING SYSTEM

In this existing system, the user has to attend the classes in regular time only, once delivered course cannot be repeated. Flexibility of multiple courses learning is not possible in the system. And also the user has to copy important notes. If any exams are conducting he has to attend the exams. The course should be finished in time. Maintaining the data relating students and course not in secured manner. This system maintains the data in the form of excel sheets and devices.

SOLUTION OF THESE PROBLEMS

The development of this new system contains the following activities, which try to automate the entire process keeping in the view of database integration approach.

- User Friendliness is provided in the application with various controls provided by system Rich User Interface.
- It can be accessed over the Internet.
- The user information files can be stored in centralized database which can be maintained by the system.
- This can give the good security for user information because data is not in client machine.
- Authentication is provided for this application only registered members can access.

As the virtual classroom is one that aims to give the student an experience equal to or better than the sort they would find in a traditional classroom, there are obviously many advantages of the virtual classroom to the student, as well as the teacher (or instructor) and the associated educational institution.

It has been a great pleasure for me to work on this exciting and challenging project. This project proved good for me as it provided practical knowledge of not only programming in ASP.NET and C#.NET web based application and no some extent Windows Application and SQL Server, but also about all handling procedure related with "Virtual Class Room". It also provides knowledge about the latest technology used in developing web enabled application and client server technology that will be great demand in future. This will provide better opportunities and guidance in future in developing projects independently.

BENEFITS:

The project is identified by the merits of the system offered to the user. The merits of this project are as follows: -

- It's a web-enabled project.
- This project offers user to enter the data through simple and interactive forms. This is very helpful for the client to enter the desired information through so much simplicity.
- The user is mainly more concerned about the validity of the data, whatever he is entering. There are checks on every stages of any new creation, data entry or updation so that the user cannot enter the invalid data, which can create problems at later date.
- Sometimes the user finds in the later stages of using project that he needs to update some of the information that he entered earlier. There are options for him by which he can update the records. Moreover there is restriction for his that he cannot change the primary data field. This keeps the validity of the data to longer extent.
- User is provided the option of monitoring the records he entered earlier. He can see the desired records with the variety of options provided by him.
- From every part of the project the user is provided with the links through framing so that he can go from one option of the project to other as per the requirement. This is bound to be simple and very friendly as per the user is concerned. That is, we can say that the project is user friendly which is one of the primary concerns of any good project.
- Data storage and retrieval will become faster and easier to maintain because data is stored in a systematic manner and in a single database.
- Decision making process would be greatly enhanced because of faster processing of information since data collection from information available on computer takes much less time than manual system.
- Allocating of sample results becomes much faster because at a time the user can see the records of last years.

- Easier and faster data transfer through latest technology associated with the computer and communication.
- Through these features it will increase the efficiency, accuracy and transparency,

LIMITATIONS:

- The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.
- Training for simple computer operations is necessary for the users working on the system.

FUTURE IMPROVEMENT

FUTURE IMPROVEMENT

The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.

For that reason in future enhancements the project will be developed in the web-based application and provide many flexible features like search engine, e- library, on-line examinations.....etc.,

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- **Software Engineering (Roger's Pressman)**

GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
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A MINI PROJECT
ON
JIGNASA STUDENT STUDY PROJECT- NETWORK
SECURITY AND CRYPTOGRAPHY



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UNDER SUPERVISION

P.SUSHMA

LECTURER IN COMPUTER SCIENCE & APPLICATIONS

ACADEMIC YEAR 2019-20



Chapter 1: Introduction

- What Operating Systems Do
- Computer-System Organization
- Computer-System Architecture
- Operating-System Structure
- Operating-System Operations
- Process Management
- Memory Management
- Storage Management
- Protection and Security
- Distributed Systems
- Special-Purpose Systems
- Computing Environments
- Open-Source Operating Systems





Objectives

- To provide a grand tour of the major operating systems components
- To provide coverage of basic computer system organization





What is an Operating System?

- A program that acts as an intermediary between a user of a computer and the computer hardware

- Operating system goals:
 - Execute user programs and make solving user problems easier
 - Make the computer system convenient to use
 - Use the computer hardware in an efficient manner





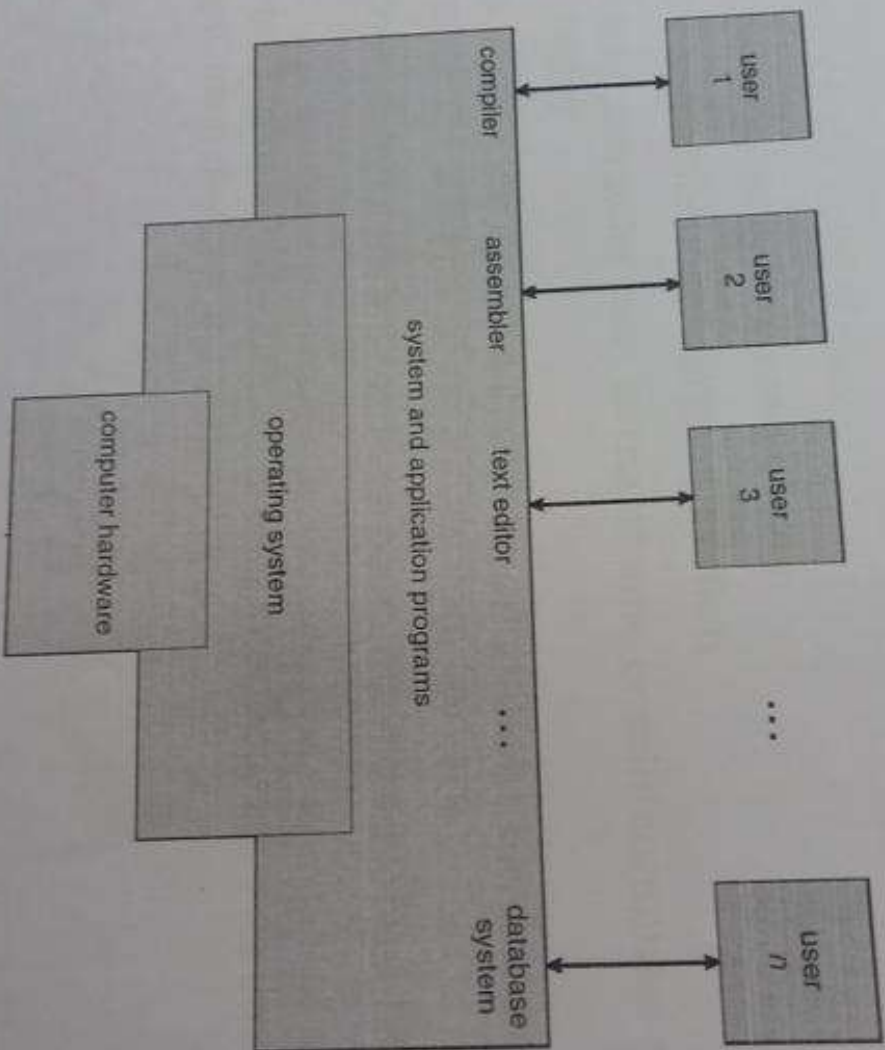
Computer System Structure

- Computer system can be divided into four components:
 - Hardware – provides basic computing resources
 - CPU, memory, I/O devices
 - Operating system
 - Controls and coordinates use of hardware among various applications and users
 - Application programs – define the ways in which the system resources are used to solve the computing problems of the users
 - Word processors, compilers, web browsers, database systems, video games
 - Users
 - People, machines, other computers



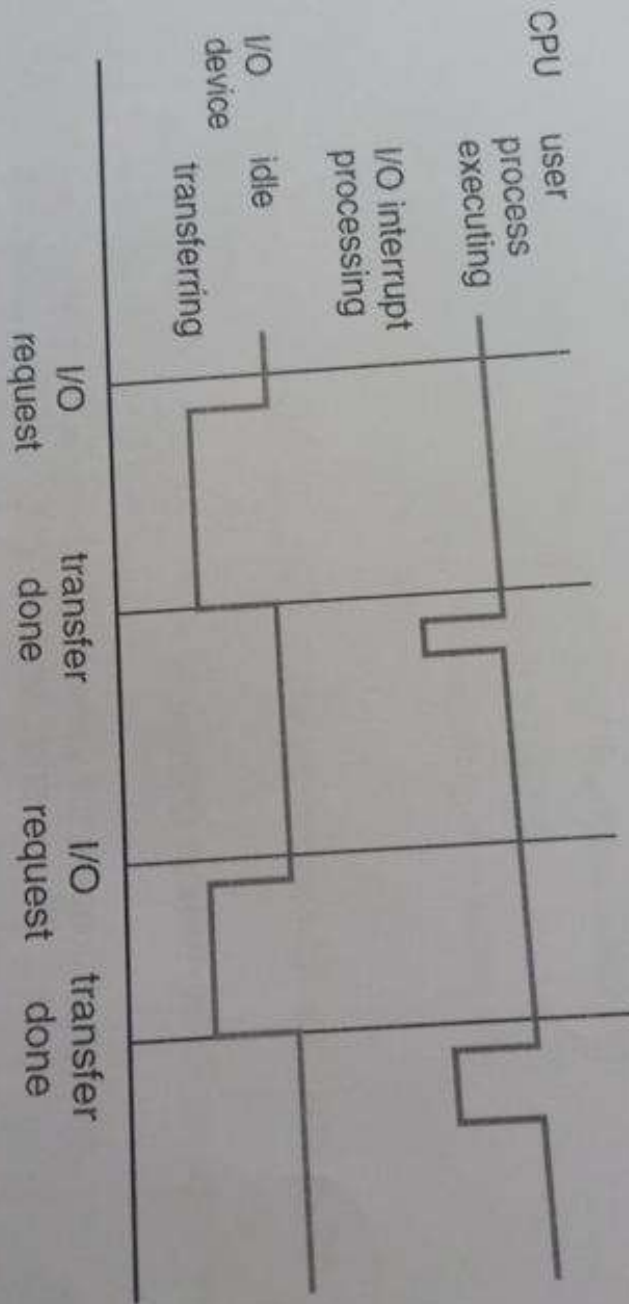


Four Components of a Computer System





Interrupt Timeline





I/O Structure

- After I/O starts, control returns to user program only upon I/O completion
 - Wait instruction idles the CPU until the next interrupt
 - Wait loop (contention for memory access)
 - At most one I/O request is outstanding at a time, no simultaneous I/O processing
- After I/O starts, control returns to user program without waiting for I/O completion
 - System call – request to the operating system to allow user to wait for I/O completion
 - Device-status table contains entry for each I/O device indicating its type, address, and state
 - Operating system indexes into I/O device table to determine device status and to modify table entry to include interrupt



GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE
A MINI PROJECT
ON
HTML TAGS AND LISTS



BY

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ACADEMIC YEAR 2019-20

Basic Html Tags

Paragraph Tags

Tag: `<p>` `</p>` (Has a closing tag) `</>` means closed.

What it Does: Puts 2 breaks between lines of text.

Attributes:

Align=left, right, center

Code Example:

```
<p align=left>This is a paragraph tag</p>  
<p align=left>This is a paragraph tag</p>
```

What it looks like:

This is a paragraph tag.

This is a paragraph tag.

Break Tags

Tag: `
` (Has no closing tag)

What it Does: Puts a one line break between text.

Code Example:

```
This is a break tag. <br>  
This is another break tag.
```

What it looks like:

This is a break tag.

This is another break tag.

Bold Tags

Tag: `` `` (Has closing tag) `</>` means closed.

What it Does: Creates bold text

Code Example: ``this is bold. ``

What it looks like:

Unordered List Tags

Tag: `` (has closing tag) `` means closed

What it Does: The `ul` tag lists items using bullets. Also indents your list tags.

Code Example:

```
<ul> This is a ul tag </ul>
```

What it looks like:

This is a ul tag.

List Tags

Tag: `` `` (has closing tag) `` means closed

What it Does: Creates a bulleted list.

Code Example:

```
<li>Apple </li>
```

```
<li>Orange </li>
```

```
<li>Peach </li>
```

What it looks like:

- Apple
- Orange
- Peach

Hyperlink Tag

Tag: `` `` Has closing tag) `` means closed.

What it does: Creates a hyperlink to another page.

Attributes:

Target="new" This opens up a new window.

Code Example:

```
<a href="doc.html">Document </a>
```

What it looks like:

height=

How these work and look. All these tags must be closed. </>

```
<table border=1 cellpadding=2 cellspacing=2>  
<tr>  
<td><td></td>  
</td></tr>
```

</table>

How it looks:

| | |
|--------|--------|
| Cell 1 | Cell 2 |
|--------|--------|

Image Tags

Tag: there is no closing tag

Attributes:

```
alt="description"  
align="right or left"  
border="0"
```

What it does: Inserts an image into the page. Always have an alt tag in your images. Alt tags are part of priority one ADA compliance. The size will not be compliant without this tag.

Code Example: This is an image .

What it looks like: This is an image .

1. Always use alt tags (alternative text) in images
2. Close your tags </>

Email Tags

```
<a href="mailto:gordon@sno-cat.com" class="links" >Gordon@sno-cat.com </a>
```

Image Tags with locations

| | |
|-----------|--|
| <option> | Defines an option in the drop-down box |
| <button> | Defines a push button |
| <isindex> | Deprecated. Use <input> instead |

With HTML you can display images in a document.

This example demonstrates how to display images in your Web page.

```
<html>
```

```
<body>
```

```
<p>
```

An image:

```

```

```
<p>
```

```
<p>
```

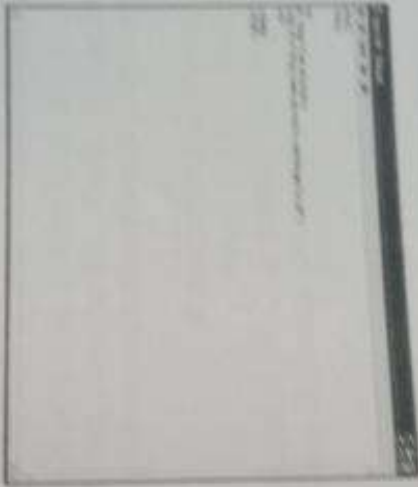
A moving image:

```

```

```
</p>
```


This example demonstrates how to display images from another folder or another server in your Web page.



Out Put



To display an image on a page, you need to use the src attribute. Src stands for "source". The value of the src attribute is the URL of the image you want to display on your page.

The syntax of defining an image:

```

```

The URL points to the location where the image is stored. An image named "boat.gif" located in the directory "images" on "www.w3schools.com" has the URL: <http://www.w3schools.com/images/boat.gif>.

The browser puts the image where the image tag occurs in the document. If you put an image tag between two paragraphs, the browser shows the first paragraph, then the image, and then the second paragraph.

The Alt Attribute

The alt attribute is used to define an "alternate text" for an image. The value of the alt attribute is an author-defined text:

```

```

The "alt" attribute tells the reader what he or she is missing on a page if the browser can't load images. The browser will then display the alternate text instead of the image. It is a good practice to include the "alt" attribute for each image on a page, to improve the display

GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
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A MINI PROJECT
ON
MAIL TRACKING



BY

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ACADEMIC YEAR 2019-20

Introduction to the company

Welcome to Mind Quest Technologies:

Mind Quest Technologies is an IT and consulting company offering world class application and product development services. Our strengths are our technical expertise in making diverse technologies work together and our commitment to maintain high service standards.

Training & Placement

We provides Training on most Advanced Technologies for students and Software Engineers. Mind Quest also provides Corporate Training and Online Training on Java,.NET, PHP,SAP,SAS,TERADATA and DATA WAREHOUSING for the top MNC's & Campus Drives for Level 4 , Level 5 & Multi National Companies

MIND QUEST is Information, Technology and Consulting firm established with a vision to provide quality IT and ITES solutions. Each project is done through a rigorous design process incorporating the given specifications. Quality Solutions are delivered to global organizations address their business challenges .We specialize in< most advanced technologies in Software development and Training .Our training helps your organization build the right skill levels amongst your workforce to support your various IT projects for complete product line of solutions

Vision :- To be the most effective multinational company providing cost-effective solutions by producing an outstanding professional pool that enables India to be the spearhead of the globe in IT and ITES services

Mission :-

"To be globally respected organization for it's value based Training, Services and Products and inspiring the prospective professional to recognize and realize their unique innate potential

INTRODUCTION TO PROJECT

The Objective of this system is to illustrate the use of Tracking. Email Tracker is an application, which is used to trace the mails send by the users.

There may be many employees in any organization it is very difficult to maintain them to restrict in not using the mail servers, so this proposed TRACKER is going to keep track of all the transactions of any user.

If anyone sends an email, then as well as the message itself, they include the recipient's email address. The mail transmission system uses the address to route the message to the recipient's - this is just a computer system equipped for storing and providing access to email. The mail server holds the message until the recipient connects to it and checks the mail.

To use email, you need to **register** on a mail server system. This provides:

- An email address so that your incoming messages stores at the right place
- A private mail storage area that will hold incoming messages until they get read
- Secure access to that area with username and password
- It also provides an area for you to store messages once they are read.

Incoming mail to any of these addresses is delivered to the same account. Outgoing messages are delivered to the particular addresses.

Tracker is an application that is used to trace the mails sent by the users. The User can navigate to all the pages and can also send mails. The Admin can view all the information and also get the reports of a particular User. User can only access the mails.

KEY GOALS OF THIS PROJECT:

- Fully compatible with Internet messaging standards.
- Allow message access and management from more than one computer.
- Client needs no knowledge about the server's file store format.
- The protocol checking for new messages, permanently removing messages, setting and clearing flags, selective fetching of message attributes, texts, and portions thereof for efficiency.

Introduction to Modules

- **Admin**
- **User**
 - Inbox.
 - Outbox.
 - Checking mails,
 - Composing
 - Deleting the unnecessary mails.

Admin

Admin is the one who is going to monitor all the users and grant or deny permissions to any user. Admin can have the information related to the user like what the entire transactions user is doing. User may do many transactions like sending and receiving mails as the information accessed is related to the company. As the information related to the company should be kept confidential and should be accessed only to the prescribed persons so the admin has to monitor all the user transactions. This application provides such option to the admin to keep track of entire user transactions like to whom the user is sending the mails and what is the content and from whom he is receiving the mails and what the content in that.

User

He can get into system with the authentication and can access all the information related to his id that is nothing but mailing services. He can do all the functionalities of the system and at the same time he can utilize all the services of the mailing server. He can send the mail or receive the mail and read what ever features mailing server provides the user can utilize all those services.

• **Inbox**

User can have all the received mails stored in this module. It gives the complete information of all the mails received.

• **Out Box**

User can store the information related to all the mails sent by him will be stored in the outbox

• **Checking Mails**

User can access all the mails received by him will be stored in the inbox and user can check those mails whenever user feels it is required.

- **Composing**

User can sent mails. User can utilize the option called composing to send the mails. To send the mails the mail has to be composed.

- **Deleting The Unnecessary Mails**

User receives much number of mails. User requires few mails to be stored and rest to be deleted. This module provides the option for user to delete unnecessary mails.

SYSTEM ANALYSIS

Definition and reason for Condition Analysis

System analysis will be performed to determine if it is feasible to design an information based on policies and plans of the organization and on user requirements and to eliminate the weaknesses of the present system.

General requirements

1. The new system should be cost effective.
2. To augment management, improve productivity and services.
3. To enhance User/System interface.
4. To improve information quality and usability.
5. To upgrade system's reliability, availability, flexibility and growth potential.

Identification of Need

Existing System (problems)

Now days there are many mail servers which are providing the mailing the systems to the users. By using these servers we can send, receive or do all the mailing services. But the problem with that we can't view the information of the user's transactions because it is very much important for an organizations like Call Centre. Unfortunately no mail server is providing such option.

Proposed System

As the TRACKER project is developed using JAVA Html; Servlets and JSP it provides a user friendly graphical user interface which navigates user through out the program by providing various task related to internet mail messaging facilities when connected to a mail server.

It provides the user to perform various emails messaging operation like checking, composing, deleting and forward email. It provides all the facilities, which are provided to the user by Outlook to access his account.

Create the dsn name as baig

Step:1

Type the following in SQL Command Line

SQL>create user mails identified by tiger;

User Created

SQL>grant connect,resource,dba to mails;

Grant Succeeded

SQL>connect mails/tiger;

Connected

Copy the tables given in 'Database' folder

Database will be ready

Give the user name for admin as **satyanjani** **satyanjani**

Follow the steps:

1. Setup the Tomcat Server, then it will be loaded in C:\Program Files\Apache Software Foundation folder.
2. Copy the folder 'mailtracker' from Project CD, and Paste it in C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps folder, ur project will be Deployed.
3. Now project is ready to execute.
4. To Start the Tomcat Server, go to the folder C:\Program Files\Apache Software Foundation\Tomcat 5.5\bin, then click tomcat5.exe file.
5. Go to the Browser and type <http://localhost:8080/mailtracker>
6. Then the Project is executed.
7. After you will get homepage under this you have two hyper links.
8. You can click **admin login** , then you will admin login form.
9. There you can provide **satyanjani** and **satyanjani**. Then you will get admin home page.

Tables.txt

```
conn system/manager
create user mails identified by tiger;
grant resource,connect,dba to mails;
conn mails/tiger
```

```
create table addresses
(actname varchar2(20),
nickname varchar2(20),
emailid varchar2(30),
address varchar2(40),
phone number(10),
uname varchar2(20)
);
```

```
insert into addresses values('malli','malli','malli@gmail.com',
'hyd',90876734,'malli');
insert into addresses values('mahesh','mahesh','mahesh@gmail.com',
'hyd',90876734,'mahesh');
```

```
create table signupdetails
(uname varchar2(30),
pwd varchar2(30),
age number(30),
sex varchar2(50),
city varchar2(30),
state varchar2(30),
pin number(10),
nation varchar2(20),
status varchar2(1)
);
```

```
insert into signupdetails
values('malli','malli',25,'male','hyd','ap',9707,'india',1);
```

```
create table newcompose
(mailid varchar2(25),
mailfrom varchar2(25),
mailto varchar2(25),
subject varchar2(20),
Date1 varchar2(50),
cc varchar2(20),
bcc varchar2(20),
maildata varchar2(4000),
status varchar2(10),
folder varchar2(20)
);
```

```
5. create table folders(fname varchar2(100),uname varchar2(20));
```

```
6. create table logininfo
(ID VARCHAR2(30),
LIN VARCHAR2(50),
PORT VARCHAR2(20),
STATUS VARCHAR2(1),
LOUT VARCHAR2(50)
);
```

```
7. create table messageinfo
(
ID VARCHAR2(30),
STO VARCHAR2(30),
SDATE VARCHAR2(50),
MSG VARCHAR2(4000),
```

**GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE
A MINI PROJECT
ON
WEB MART**



BY

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ACADEMIC YEAR 2019-2020

web mart

WEB MART

Objective:

The objective of the project is to develop a system for a business enterprise which does online business. The system is a virtual showcase for different types of products like Books, popular music, DVD, Apparel, Toys, Computers, sports, Software, HealthCare, Jewellery, Kids Ware etc. The main aim of this project is to make Online shopping easy.

Existing System:

The current system does not have any online interface which can show case a wide range of products to customers. It does have a show room where all the products are placed and made as available for the customers to get information about them and make them buy. In the real world scenario, customers are not willing to shop for hours together, which is the big reason why the proposed system is being developed.

Proposed System:

In order to eliminate the limitations in existing system and to attract more customers, this application is being developed. The system provides facilities to browse through the categories of products and items. The system allows a customer to make online purchases and electronic payments. The system maintains the entire information in a centralized database, which allows efficient maintenance of data.

Modules:

The system is proposed to have the following modules.

Administrator, visitor, customer and reports.

Administrator module:

This module allows one to perform administrative activities. An administrator can maintain the details of inventory, customers and orders. Administrator can add, delete and edit information as and when required.

Visitor module:

Visitors are users who access the system without proper registration. These visitors can just browse the information. But to avail the services visitors must register.

Customer module:

Customers are registered users. Customers can avail all services offered by the system. Customers can view the products and place orders. Customers can use a virtual shopping cart to which items can be added and removed from. When a customer places the order, a bill is generated and customer can choose to pay either through card or on delivery.

Reports module:

The system allows administrator to generate reports on the basis of different criteria. The reports can be used to identify patterns and trends of purchases and customer interests.

Software Requirements:

- Operating System : Windows Vista/ XP / 2000 Server / 2003 Server
- IDE : Visual Studio .Net 2008 Enterprise Edition
- Technologies : ASP.NET with C#.NET
Internet Information Server 5.0 (IIS)
Visual Studio .Net Framework (for Deployment)
version 3.5
- DATA BASE : SQL Server 2005 Enterprise Edition

Hardware Requirements:

- Processor : PIV 2.8 GHz Processor and Above
- RAM : 1GB and Above
- Hard Disk : 40 GB and Above

INTRODUCTION TO PROJECT

The Web Mart is a web based project. The project is fully integrated with Customer Relationship Management (CRM) solution and developed in a manner that is easily manageable, time saving and relieving one form semi automated.

The system is a virtual showcase for different types of products like Books, popular music, DVD, Apparel, Toys , Computers, sports, Software, HealthCare, Jewellery, Kids Ware etc. The main aim of this project is to make Online shopping easy.

EXISTING SYSTEM

The current system does not have any online interface which can show case a wide range of products to customers. It does have a show room where all the products are placed and made as available for the customers to get information about them and make them buy. In the real world scenario, customers are not willing to shop for hours together, which is the big reason why the proposed system is being developed.

PROPOSED SYSTEM

In order to eliminate the limitations in existing system and to attract more customers, this application is being developed. The proposed system is a web based application. The system provides facilities to browse through the categories of products and items. The system allows a customer to make online purchases and electronic payments. The system maintains the entire information in a centralized database, which allows efficient maintenance of data. The application areas for the computerization have been selected on the basis of following factors:

- Minimizing the manual records kept at different locations.
 - There will be more data integrity.
 - Facilitating desired information display, very quickly, by retrieving information from users.
 - Facilitating various statistical information which helps in decision-making?
 - To reduce manual efforts in activities that involved repetitive work.
- Updating and deletion of such a huge amount of data will become easier.

INTRODUCTION

After analyzing the requirements of the task to be performed, the next step is to analyze the problem and understand its context. The first activity in the phase is studying the existing system and other is to understand the requirements and domain of the new system. Both the activities are equally important, but the first activity serves as a basis of giving the functional specifications and then successful design of the proposed system. Understanding the properties and requirements of a new system is more difficult and requires creative thinking and understanding of existing running system is also difficult, improper understanding of present system can lead diversion from solution.

ANALYSIS MODEL

This document play a vital role in the development of life cycle (SDLC) as it describes the complete requirement of the system. It means for use by developers and will be the basic during testing phase. Any changes made to the requirements in the future will have to go through formal change approval process.

SPIRAL MODEL was defined by Barry Boehm in his 1988 article, "A spiral Model of Software Development and Enhancement. This model was not the first model to discuss iterative development, but it was the first model to explain why the iteration models.

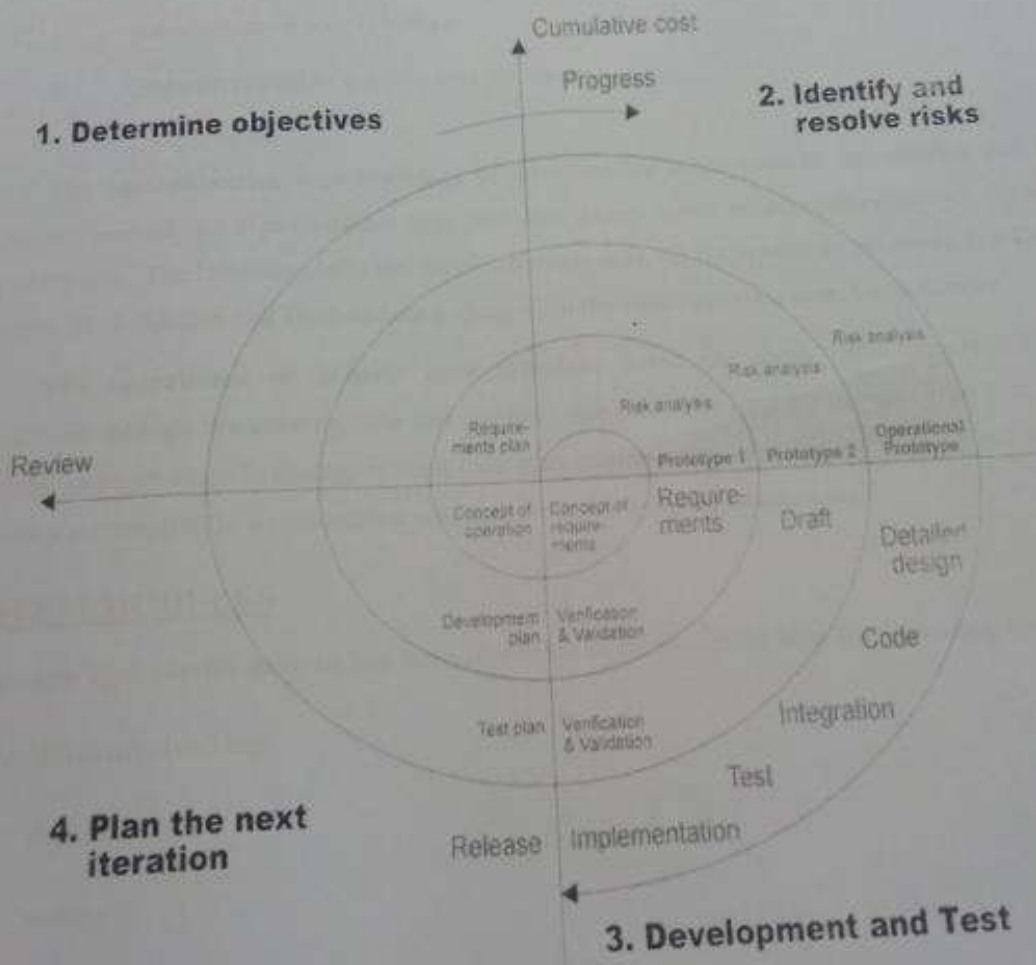
As originally envisioned, the iterations were typically 6 months to 2 years long. Each phase starts with a design goal and ends with a client reviewing the progress thus far. Analysis and engineering efforts are applied at each phase of the project, with an eye toward the end goal of the project.

The steps for Spiral Model can be generalized as follows:

- The new system requirements are defined in as much details as possible. This usually involves interviewing a number of users representing all the external or internal users and other aspects of the existing system.
- A preliminary design is created for the new system.

- A first prototype of the new system is constructed from the preliminary design. This is usually a scaled-down system, and represents an approximation of the characteristics of the final product.
- A second prototype is evolved by a fourfold procedure:
 1. Evaluating the first prototype in terms of its strengths, weakness, and risks.
 2. Defining the requirements of the second prototype.
 3. Planning & designing the second prototype.
 4. Constructing and testing the second prototype.
- At the customer option, the entire project can be aborted if the risk is deemed too great. Risk factors might involved in development cost overruns, operating-cost miscalculation, or any other factor that could, in the customer's judgment, result in a less-than-satisfactory final product.
- The existing prototype is evaluated in the same manner as was the previous prototype, and if necessary, another prototype is developed from it according to the fourfold procedure outlined above.
- The preceding steps are iterated until the customer is satisfied that the refined prototype represents the final product desired.
- The final system is constructed, based on the refined prototype.
- The final system is thoroughly evaluated and tested. Routine maintenance is carried on a continuing basis to prevent large scale failures and to minimize down time.

The following diagram shows how a spiral model acts like:



- FOR .NET INSTALLATION

www.support.microsoft.com

- FOR DEPLOYMENT AND PACKING ON SERVER

www.developer.com

www.15seconds.com

- FOR SQL

www.msdn.microsoft.com

- FOR ASP.NET

Asp.Net 3.5 Unleashed

www.msdn.microsoft.com/net/quickstart/aspplus/default.com

www.asp.net

www.fmexpense.com/quickstart/aspplus/default.com

www.asptoday.com

www.aspfree.com

www.4guysfromrolla.com/index.aspx

- Software Engineering (Roger's Pressman)

**GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
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A MINI PROJECT
ON
SIMPLE SQL PARSER & QUERY IMPLEMENTATION**



BY

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ACADEMIC YEAR 2020-21

Attendance Management System

Introduction:-

Attendance Management System is a software developed for daily student attendance in schools, collages and institutes. It facilitates to access the attendance information of a particular student in a particular class. The information is sorted by the operators, which will be provided by the teacher for a particular class. This system will also help in evaluating attendance eligibility criteria of a student.

Purpose:-

The purpose of developing attendance management system is to computerized the tradition way of taking attendance. Another purpose for developing this software is to generate the report automatically at the end of the session or in the between of the session

Scope:-

The scope of the project is the system on which the software is installed, i.e. the project is developed as a desktop application, and it will work for a particular institute. But later on the project can be modified to operate it online.

Technology Used:-

Language:-VB.NET

Backend:-MS-Access

System Requirement:-

Minimum RAM:-256 MB

Hard Disk:-40 GB

Processor:-Intel Pentium 4

Operating System:-Windows XP Service Pack2

Overview:-

Attendance Management System basically has two main modules for proper functioning

- First module is admin which has right for creating space for new batch. Any entry of new faculty, Updation in subject if necessary, and sending notice.
- Second module is handled by the user which can be a faculty or an operator. User has a right of making daily attendance, generating report.

Attendance can be taken in two ways:

- On the basis of Subject and month.

Economically Feasibility:

The system being developed is economic with respect to School or Collage's point of view. It is cost effective in the sense that has eliminated the paper work completely.

The system is also time effective because the calculations are automated which are made at the end of the month or as per the user requirement.

The result obtained contains minimum errors and are highly accurate as the data is required.

Technical feasibility:

The technical requirement for the system is economic and it does not use any other additional Hardware and software.

Behavioral Feasibility:

The system working is quite easy to use and learn due to its simple but attractive interface. User requires no special training for operating the system.

Working Of Present System

In the present system all work is done on paper. The whole session attendance is stored in register and at the end of the session the reports are generated. We are not interested in generating report in the middle of the session or as per the requirement because it takes more time in calculation. At the end of session the students who don't have 75% attendance get a notice.

DISADVANTAGES OF PRESENT WORKING SYSTEM

- ❑ **Not User Friendly:** The existing system is not user friendly because the retrieval of data is very slow and data is not maintained efficiently.
- ❑ **Difficulty in report generating:** We require more calculations to generate the report so it is generated at the end of the session. And the student not get a single chance to improve their attendance
- ❑ **Manual control:** All calculations to generate report is done manually so there is greater chance of errors.
- ❑ **Lots of paperwork:** Existing system requires lot of paper work. Loss of even a single register/record led to difficult situation because all the papers are needed to generate the reports.
- ❑ **Time consuming:** Every work is done manually so we cannot generate report in the middle of the session or as per the requirement because it is very time consuming.

CHARACTERISTIC OF THE PROPOSED SYSTEM

- **User Friendly:-** The proposed system is user friendly because the retrieval and storing of data is fast and data is maintained efficiently. Moreover the graphical user interface is provided in the proposed system, which provides user to deal with the system very easily.
- **Reports are easily generated:** reports can be easily generated in the proposed system so user can generate the report as per the requirement (monthly) or in the middle of the session. User can give the notice to the students so he/she become regular.
- **Very less paper work:** The proposed system requires very less paper work. All the data is fed into the computer immediately and reports can be generated through computers. Moreover work become very easy because there is no need to keep data on papers.
- **Computer operator control:** Computer operator control will be there so no chance of errors. Moreover storing and retrieving of information is easy. So work can be done speedily and in time.

Attendance Management System

Admin Table:

| S.No. | Field name | Data Type | Description |
|-------|------------|-----------|---|
| 1. | User name | Text | Store user name for checking correct username |
| 2. | Password | Text | Store password corresponding to username |
| 3. | User Type | Text | User Type Administrator or User. |

Teacher Table:

| S.No. | Field name | Data Type | Description |
|-------|--------------|-----------|------------------------------|
| 1. | Teacher Id | Number | Unique key for Every Teacher |
| 2. | Teacher Name | Text | Name of Teacher |

Attendance Table:

| S.No. | Field name | Data Type | Description |
|-------|--------------|-----------|--|
| 1. | Student Name | Text | Name of Student |
| 2. | Status | Number | Total number classes attended by particular Student |
| 3. | Semester | Text | In which Semester Student is Studying |
| 4. | Subject | Text | The Subject Wise Attendance Is maintained |
| 5. | Month | Text | The Month Wise Attendance is maintained where total working days in month=20 |

8.2. Attendance Status Form

The screenshot shows a window titled "Form10" with a list of student names on the left and an "Ok" button at the bottom right. The names listed are:

- Aditya Gaudin
- Anchal Jain
- Anil Kumar Agarwal
- Ankita Agarwal
- Anoop Soni
- Ashok Kumar Soni
- Avin Varshneya
- Atul Chopra
- Avinash Chakravarti
- Ayush Soper
- Bhalya Lal Agarwal
- Bharat Singh Guler
- Bhupendra Singh Bhargava
- Bhupesh Sharma
- Chandra Prakash Agarwal
- Devendra Singh Saxena
- Gaurav Gaur
- Hridayesh Sharma
- Jatin Kinn
- Kirti Saxena

This form shows the status of the students or we can say number of classes attended in a particular subject in a particular month. When user click on the 'View Status' button of short list form then this form will appear with the status.

Conclusion

The Attendance Management System is developed using Visual Basic.NET fully meets the objectives of the system which it has been developed. The system has reached a steady state where all bugs have been eliminated. The system is operated at a high level of efficiency and all the teachers and user associated with the system understands its advantage. The system solves the problem. It was intended to solve as requirement specification.

**GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN,
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE
A MINI PROJECT
ON
MICROSOFT WORD AND EXCEL**



BY

| | |
|-------------|------------------|
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UNDER SUPERVISION

D. SRINIVAS

LECTURER IN COMPUTER SCIENCE & APPLICATIONS

ACADEMIC YEAR 2020-21

Putting It All Together With Microsoft Excel and Word

In this math project you and your partner, are to investigate a question. Below is a list of possible investigation topics. You are to gather data, either by taking a survey of people, or by using the World Wide Web. Your data is to be organized in a spreadsheet of your design using Microsoft Excel 2000. Again, using Excel, you are to create an *appropriate* chart from your spreadsheet to show, the results of your investigation. You are to integrate your Excel spreadsheet and chart into a multi-page, written report in Microsoft Word.

1. And the Winner Is

Who is the favorite musical group or performer in your school? Ask at least 25 students in your school to name their favorite musical group or performer. Limit the choices to seven or eight.

1. Write a statement of the problem.
2. Make a hypothesis of what you think the answer to the question will be.
3. Take a survey of your class giving them 7-8 choices.
4. Organize your data into a spreadsheet using Excel.
5. Use a formula or a function to get the sum of the votes.
6. Format to create an attractive spreadsheet and to make the question and the answer stand out.
7. Create an appropriate, chart to represent your data.
8. Format to create an attractive chart, and to make the results of your investigation stand out.
9. Write a summary of your conclusions.



2. Data Duels

What is the favorite hobby in your school? Ask at least 25 students in your school to name their favorite hobby. Limit the choices to seven or eight different pastimes. Some choices may include reading, exercise, shopping, and dancing.

1. Write a statement of the problem.
2. Make a hypothesis of what you think the answer to the question will be.
3. Take a survey of your class giving them 7-8 choices.
4. Organize your data into a spreadsheet using Excel.
5. Use a formula or a function to get the sum of the votes.
6. Format to create an attractive spreadsheet and to make the question and the answer stand out.



7. Create an appropriate chart to represent your data.
8. Format to create an attractive chart, and to make the results of your investigation stand out.
9. Write a summary of your conclusions.

3. Ups and Downs

Is there a big difference in the high and low temperatures in a city? Using the World Wide Web, select a city and record the high and low temperatures for each day for one week. . Decide what city you will use: Tokyo, Chicago, Rio de Janeiro...

1. Write a statement of the problem.
2. Make a hypothesis of what you think the answer to the question will be.
3. Collect the temperature data using the W.W.W.
4. Organize your data into a spreadsheet using Excel.
5. Using formulas, calculate the mean high and mean low temperature for the week
6. Format to create an attractive spreadsheet and to make the question and the answer stand out.
7. Create an appropriate, chart to represent your data.
8. Format to create an attractive chart, and to make the results of your investigation stand out.
9. Write a summary of your conclusions.



4. Science Fiction Films

How long is the average science fiction film? Using the World Wide Web, record the names and the lengths in minutes of 20 science fiction movies.

1. Write a statement of the problem.
2. Make a hypothesis of what you think the answer to the question will be.
3. Collect the movie length data using the W.W.W.
4. Organize your data into a spreadsheet using Excel.
5. Using formulas or functions, calculate the mean, median and mode film length.
6. Format to create an attractive spreadsheet and to make the question and the answer stand out.
7. Create an appropriate, chart to represent your data.
8. Format to create an attractive chart, and to make the results of your investigation stand out.
9. Write a summary of your conclusions.



5. As Easy As Pie

What is the favorite pie in your school? Ask at least 25 students in your school to name their favorite type of pie. Limit the choices to seven or eight different pies. For choices, go to www.mariecalendars.com.

1. Write a statement of the problem.
2. Make a hypothesis of what you think the answer to the question will be.
3. Take a survey of your class giving them 7-8 choices.
4. Organize your data into a spreadsheet using Excel.
5. Use a formula or a function to get the sum of the votes.
6. Format to create an attractive spreadsheet and to make the question and the answer stand out.
7. Create an appropriate chart to represent your data.
8. Format to create an attractive chart, and to make the results of your investigation stand out.
9. Write a summary of your conclusions.



Project Rubric

| Description | Points Possible |
|--|-----------------|
| Attractive Title Page | 0-4 |
| WordArt Title, Picture and Heading | 0-4 |
| Attractive Table of Contents | 0-4 |
| Title and Tabbed Columns, Leaders, and Picture | 0-4 |
| Statement of the Problem | 0-4 |
| Investigation Question, Hypothesis and Procedures | 0-4 |
| Headers/Footers | 0-4 |
| Spreadsheet—Correct Set-up of Labels, Data, and Math | 0-4 |
| Spreadsheet—Formatting | 0-4 |
| Does the question and answer stand out? | 0-4 |
| Graph | 0-4 |
| Correct Representation of Data. | 0-4 |
| Graph—Formatting | 0-4 |
| Do the results of your investigation stand out? | 0-4 |
| Summary of Investigation | 0-4 |
| What did you learn? Was your hypothesis correct? Were there any surprises? | 0-4 |
| Project Design—Repetition, contrast, alignment, proximity | 40 |
| Total | |


Starting Your Excel Report In Word

Instead of printing one page, you are going to produce a six-page report. The first page of the report is the **cover**. The second page is the **table of contents**. The third page is the **statement of the problem**, your **hypothesis**, and the **procedures** you are going to use. The fourth and fifth pages are for your **Excel spreadsheet** and **Excel chart**, and the sixth page is for your **summary**. All of the pages, except for the cover will have will have a **header and footer** on them.

Before you begin, make the following choices and stick to them.


1. With your partner, select one of the five investigations that interest you.
2. Read over what the investigation is about before you begin the next step.
3. Decide on a **title Font Type, Font Size and Color and Effects**. Be consistent—stick to your choices throughout the project.
4. Decide on a **contrasting text Font Type, Font Size, and Color**. Be consistent—stick to your choices throughout the project.

Setting-up the Report in Microsoft Word

5. Start Microsoft Word.
6. You are now on Document1.
7. Click the **Show/Hide** button so you can see spaces and paragraph marks.
8. Click the **Maximize** button  to enlarge the window.

Saving a Document

Document1 has not been saved with a name.

9. Press **Ctrl+S**. The Save dialog box appears.
10. To the right of the **Save in** text box, click the drop-down arrow  and select your period folder.
11. In the **File name** text box, a suggested file name should be highlighted.
12. Replace this filename by typing **Excel Project**, press **Spacebar**, type your initials, press **Spacebar**, and type your partner's initials.
13. Click **Save** or press **Enter**.

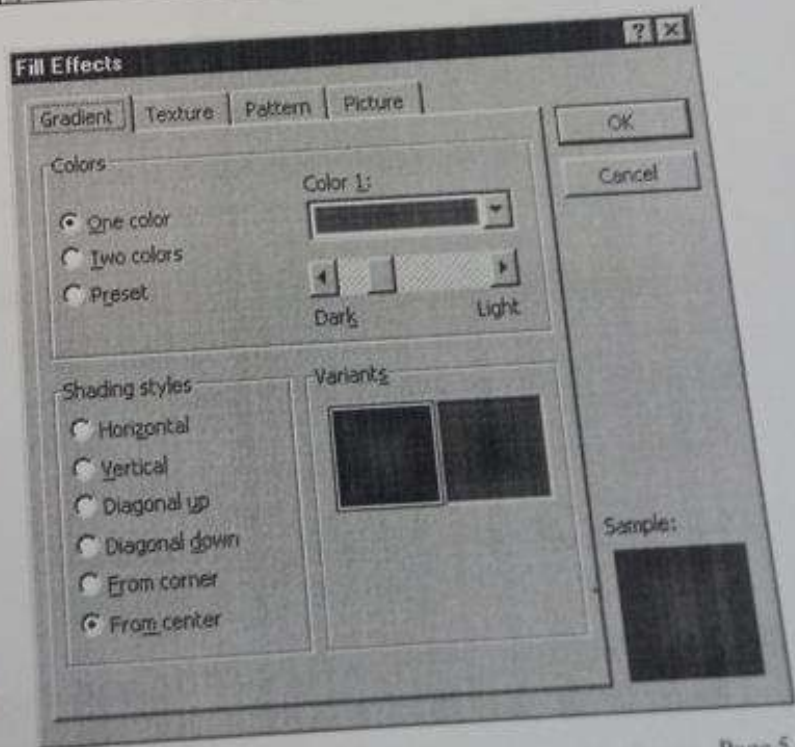
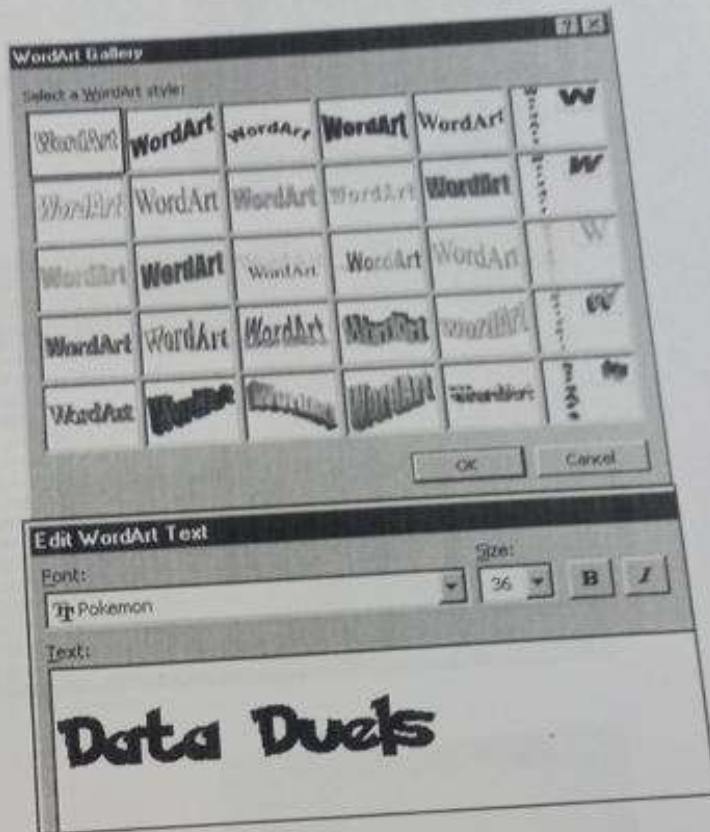
Creating a Title Page

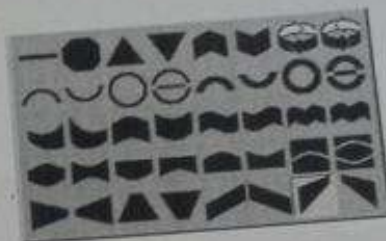
14. Press **Ctrl+E** to center the text on the first line.


15. Click **Insert**, point to **Picture**, and select **WordArt**. The WordArt Gallery appears.
16. Select any style.
17. Click **OK**.
18. The Edit WordArt Text dialog box appears.
19. Type your project title.
20. Choose a **Font** and **Size**.
21. Click **OK**.

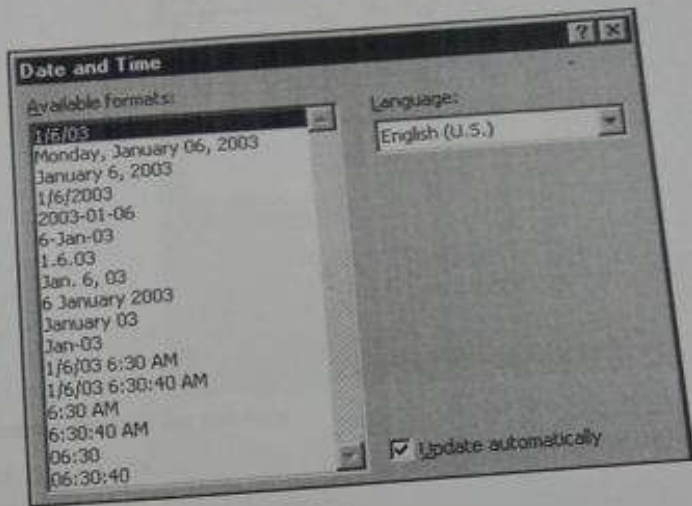
Formatting the WordArt

22. Right-click the **WordArt** and select **Format WordArt**. The Format WordArt dialog box opens.
23. Click the **Layout** tab.
24. Under **Wrapping Style**, select **In line with text**.
25. Click the **Colors and Lines** tab.
26. Under **Color**, click the drop-down arrow next to **Fill**.
27. Select **Fill Effects**.
28. Click the **Gradient**, **Texture**, or **Picture** tabs.
29. Select a **Gradient**, **Texture**, or **Picture**.
30. Click **OK** twice.
31. When a piece of WordArt is selected, the WordArt toolbar is open.



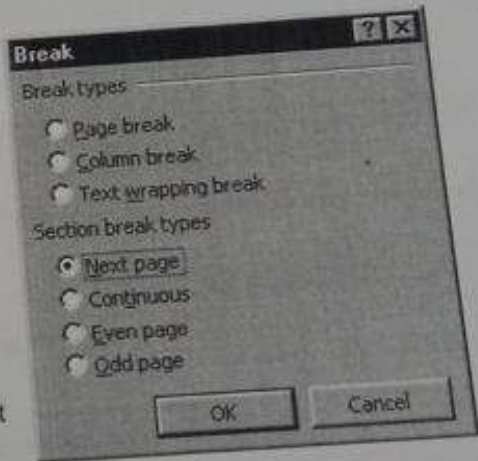


32. Click the **WordArt Shape** button  on the WordArt toolbar.
33. Select a **shape** if you wish.
34. Press **Ctrl+End**.
35. Press **Enter** 7 times.
36. These spaces are set aside for a picture.
37. Click on the **Align Right** button on the **Formatting** toolbar.
38. Type your name.
39. Press **Enter**.
40. Type your partner's name.
41. Press **Enter**.
42. Click **Insert** on the **Menu** bar and select **Date and Time**.
43. Select one of the **Available formats**.
44. Check **Update automatically**.
45. Press **Enter**.
46. Type **Period**, press the **Spacebar**, and type your period number.



Creating a Table of Contents Page

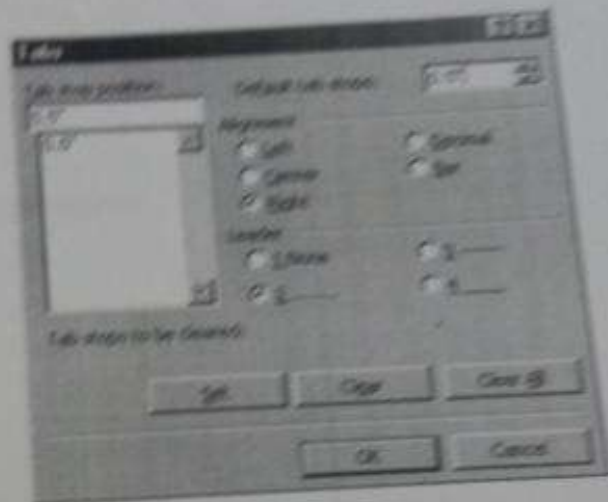
47. Click **Insert** on the **Menu** bar and select **Break**.
48. The **Break** dialog box opens.
49. Under **Section Break types**, select **Next page**.
50. Click **OK**.
51. You have now made a new page and a new section.
52. Click the mouse at the top of page 2.
53. The insertion point should be at the top of the page on the right side of the paper.
54. Press **Ctrl+E** to center the insertion point.
55. Press **Ctrl+2** to double-space your text.
56. Type **Table of Contents**.
57. Press **Enter** twice.



Setting Tab Stops for the TOC

58. Press **Ctrl+L** to left align the insertion point.
59. Type **Statement of the Problem**.

60. Press Tab.
61. Type 3.
62. Press Enter.
63. Type Results-Spreadsheet
64. Press Tab.
65. Type 4
66. Press Enter.
67. Type Results-Graph
68. Press Tab.
69. Type 5.
70. Press Enter.
71. Type Summary.
72. Press Tab.
73. Type 6.




74. Select all the text in the table of contents **except** for the title.
75. Click **Format** on the Menu bar and select **Table**.
76. Type 5.5 for the **Table stop position**. This is the end of the page.
77. Under **Alignment** select **Right**.
78. Select the dotted **Leader**.
79. Click **Set**.
80. Click **OK**.
81. With the TOC text still selected, format the **Font Type**, **Font Size**, and **Color** the way you decided for your body text.
82. Select the title **Table of Contents**.
83. Format the **Font Type**, **Font Size**, and **Color** the way you decided for your title text.
84. Press **Enter** a few times at the end of your TOC.
85. Click **Insert** on the Menu bar, point to **Picture**, and select **Clip Art**.
86. The **Clip Gallery** opens.
87. Insert a picture into your TOC page.
88. Be selective—choose a picture that fits your topic. Use the Web link to the **CLIPGALLERYLIVE** if you wish. *Experiment*.
89. Press **Ctrl+E** to center your picture.
90. Change the **Zoom** box to **Whole Page**.
91. Use the **Shift** key and the resizing handles to change the size of your picture.
92. Make sure you only have one page for your Table of Contents.

- 93. Look at Figure 1
- 94. Change the Zoom box to 100%.
- 95. Press **Ctrl+S** to save your document.

Figure 1

| TABLE OF CONTENTS | |
|--------------------------|---|
| Statement of the Problem | 3 |
| Results-Spreadsheet | 4 |
| Results-Graph | 5 |
| Summary | 6 |



Inserting a New Section and Page for the Statement of the Problem

- 96. Press **Ctrl+End** to go to the exact end of page 2.
- 97. The insertion point should be to the right of your picture.
- 98. Click **Insert** on the **Menu** bar and select **Break**. The Break dialog box opens.
- 99. Under **Section** break types, select **Next page**.
- 100. Click **OK**.
- 101. You should be at the top of **page 3**.
- 102. Press **Ctrl+E** to center the insertion point.
- 103. Press **Ctrl+2** to double space.
- 104. Type **Statement of the Problem**.
- 105. Press **Enter** twice.
- 106. Press **Ctrl+L** to left align the insertion point.

**GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE**

E-SEVA



BY

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**GOVERNMENT DEGREE COLLEGE FOR WOMEN, KARIMNGAR
ACADEMIC YEAR 2020-21**

INTRODUCTION

"E-SEVA" Kendra is for General Seva to the citizen of the country. This is a common platform every citizen can avail different General Seva's of the Government Department. The government will give the licences through bids for sound firms for affecting General Seva.

This is a counter where various citizens are paying the charges, duties various payments for different department and authorities. The responsibility of this General Seva Kendra is to collect and transfer the found to government treasury or as subscribed by the government authorities.

The Kendra's are put up permanently at various points, which is comfortable to the citizens where they can utility bills. The Kendra is fully equipped with state of art technology to need and serve general public with General Seva.

Expected Results:

- ❖ Time saving for the citizen to various services at single General Seva Services.
- ❖ Cost saving by citizen with having multiple Seva Kendra in cities/states.
- ❖ Total transparency of various departments.
- ❖ Multiple options of payments like cash, cheque, draft, credit card etc.

Modules:

The following modules are being designed for the solution to provide General Seva.

- ❖ Telephone Bill
- ❖ Electricity Bill

❖ Water Bill

Telephone Bill:

General Seva Kendra accepts the payments for Telephones Department on the basis of the bill issued to the subscribed by the Telephone Department. The same billing data is also transferred to the networking to these Kendra also. With the available database and invoices the officers at the General Seva Kendra will take the payment in different forms and issue receipt for the same. The receipt is valued and accepted by the telephone department as well with the different government authorities.

Electricity Bill:

General Seva Kendra accepts the payments for the Electricity department for Residential, commercial, factories etc. The bill is always issued to the consumer by the Electricity department and same database is update by General Seva's. The payments for the invoices are accepted by the General Seva Kendra till the due date prescribed in the invoices. General Seva Kendra does not accept the payment after due date. The receipt issued by Government authorities.

Water Bill:

The water and sewerage department on monthly basis issues the invoices for the water and sewerage charges. Invoices are directly issued and given to the consumers. The water and Sewerage Board update the database of the General Seva Kendra as and when invoices are issued. On this available information General Seva Kendra will collect the payment from consumer and issue for the same. The receipt issued by General Seva Kendra is valid as issued by the authority and accepted by various Government authority.

REQUIREMENT ANALYSIS

SYSTEM REQUIREMENTS

Hardware Specification:

| | | |
|-----------|---|------------|
| Processor | : | Pentium IV |
| RAM | : | 512MB |
| Hard Disk | : | 80GB |

Software Specification:

| | | |
|------------------|---|-------------------|
| Language | : | ADO.NET |
| Database | : | Oracle 9i |
| Operating System | : | Windows 2000/XP/1 |

Business Requirement:

General Seva is being promoted mainly keeping the general public in mind. As the project title itself speaks General Seva i.e., for common public, which is being designed promoted implemented for General public by the Government.

The said application is connected to the Master Server in different levels of accessibilities. The main feature of the General Seva is to collect the payment from general public.

Functional requirements

E-seva Kendra system is mainly is divided by

Administrator:

- ❖ Give information to the employees.
- ❖ Control employee operations.
- ❖ Verify reports.

Clerks:

- ❖ Enter customer bills details.
- ❖ Prepare reports.
- ❖ Submit reports.

FEASIBILITY ANALYSIS

Economic Feasibility:

Taking cost benefit analysis into consideration the benefit of the proposed system surpasses the cost. Further the cost of the software and hardware is nullified. Since the system is developed taking into consideration the available resources in the Company.

Technical Feasibility:

The system has no constraints regarding to the availability of the software and hardware. The system has capability to hold the required amount of data taking into consider the system.

Operational Feasibility:

There is a great deal of support and encouragement for the system from the company. End users are aquatinted with the operating environment and need a briefing of its operation. The manual will solve the problems of the software.

TECHNOLOGIES USED

What is .NET?

Many people reckon that it's Microsoft's way of controlling the Internet, which is false. .NET is Microsoft's strategy of software that provides services to people any time, any place, on any device. An accurate definition of .NET is, it's an XML Web Services platform which allows us to build rich .NET applications, which allows users to interact with the Internet using wide range of smart devices (tablet devices, pocket PC's, web phones etc), which allows to build and integrate Web Services and which comes with many rich set of tools like Visual Studio to fully develop and build those applications.

What is .NET Built On?

.NET is built on the Windows Server System to take major advantage of the OS and which comes with a host of different servers which allows for building, deploying, managing and maintaining Web-based solutions. The Windows Server System is designed with performance as priority and it provides scalability, reliability, and manageability for the global, Web-enabled enterprise. The Windows Server System integrated software products are built for interoperability using open Web standards such as XML and SOAP.

Core Windows Server System Products include:

SQL Server 2000: This Database Server is Web enabled and is designed with priority for .NET based applications. It is scalable, easy to manage and has a native XML store.

Application Center 2000: This product is designed to manage Web Applications.

Commerce Server 2000: This powerful Server is designed for creating E-Commerce based applications.

Mobile Information Server: This Server provides real-time access for the mobile community. Now Outlook users can use their Pocket PC's to access all their Outlook data while they are moving.

Exchange Server 2000: This is a messaging system Server and allows applications on any device to access information and collaborate using XML.

BizTalk Server 2000: This is the first product created for .NET which is XML based and allows to build business process that integrate with other services in the organization or with other Businesses.

Internet Security and Acceleration Server 2000: This Server provides Security and Protection for machines. It is an integrated firewall and Web cache server built to make the Web-enabled enterprise safer, faster, and more manageable.

Host Integration Server 2000: This Server allows for the Integration of mainframe systems with .NET.

When developing real world projects if you don't know how to use the above mentioned Server's which are built for .NET based applications do not worry. Your System Administrator is always there to help you.

.NET vs Java

Many of us wonder what .NET has to do with Java. Is there any relation between them? Are they similar? and so on. I even hear some people say .NET is Microsoft's answer to Java. I think every language has its own pros and cons. Java is one of the greatest programming languages created by humans. Java doesn't have a visual interface and requires us to write heaps of code to develop applications. On the other hand, with .NET, the Framework supports around 20 different programming languages which are better and focus only on business logic leaving all other aspects to the Framework. Visual Studio .NET comes with a rich visual interfaces and supports drag and drop. Many applications were developed, tested and maintained to compare the differences between .NET and Java and the end result was a particular application developed using .NET requires less lines of code, less time to develop and lower deployment costs along with other important issues. Personally, I don't mean to say that Java is gone or .NET based applications are going to dominate the Internet but I think .NET definitely has an extra edge as it is packed with features that simplify application development.

I hope the information above puts some light on the technology aspects behind .NET and helps you in getting started.

USER: E-SEVA CLERKS

PURPOSE: DELETE CUSTOMER WATER BILL DETAILS

The screenshot shows a software application window titled "Waterbill Payment". The window contains several input fields and buttons. The input fields are labeled as follows:

- Enter serial No: 148
- Enter Name: KUNYKA
- Enter Hno: 116
- Enter Street: NGOS COLONY
- Enter City: WARANGAL
- Pincode: 50
- Date Of Payment: 7-1
- Enter Amount: 45

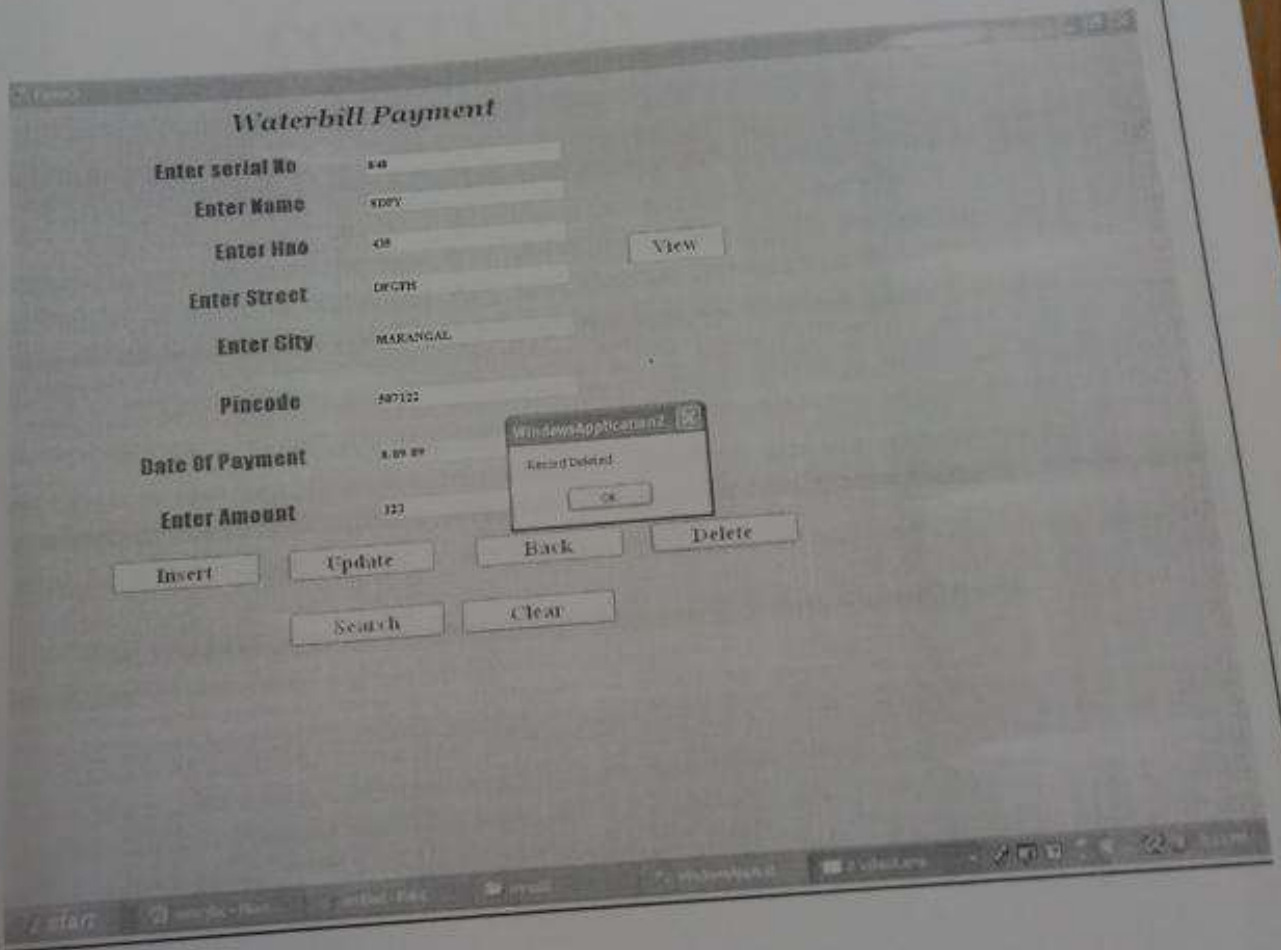
Buttons visible in the application window include "View", "Insert", "Update", "Back", "Delete", "Search", and "Clear".

A modal dialog box titled "Windows Application 2" is overlaid on the main window. It contains the text "Enter Serial No to delete" and two buttons: "Ok" and "Cancel".

The Windows taskbar at the bottom shows the Start button, several open applications, and the system tray with the date and time.

USER: E-SEVA CLERKS

PURPOSE: DELETE CUSTOMER WATER BILL DETAILS



CONCLUSION

The entire project has been developed and deployed as for the requirements stated by the user, it is found to bug free has for the testing standards that are implemented. Any specification-untraced errors will be concerned in the coming versions, which are planned to be developed in near future.

The system at present does not take care off the money payment methods, as the consolidated constructs need standards and are critically to be initiated in the first face, the application of the credit card transactions is applied as a developed phase in the coming days.

The system needs more elaborative technically for its inception and evolution.

**GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE**

**PROJECT REPORT
ON
HTML – Creating Tables**



BY

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**GOVERNMENT DEGREE COLLEGE FOR WOMEN, KARIMNAGAR
ACADEMIC YEAR 2020-21**

Introduction

You may want to consider using HTML tables in your website. In addition to creating HTML tables to present data in rows and columns, you can also create HTML tables to organize information on your web page.

The process of creating an HTML table is similar to the process that you used to create your web page and any elements that you may have already included in your page, such as links or frames. Coding HTML tables into your web page is fairly easy since you need only understand a few basic table codes.

Creating a basic table

The basic structure of an HTML table consists of the following tags:

- Table tags: `<TABLE>` `</TABLE>`
- Row tags: `<TR>` `</TR>`
- Cell tags: `<TD>` `</TD>`

Constructing an HTML table consists of describing the table between the beginning table tag, `<TABLE>`, and the ending table tag, `</TABLE>`. Between these tags, you then construct each row and each cell in the row. To do this, you would first start the row with the beginning row tag, `<TR>`, and then build the row by creating each cell with the beginning cell tag, `<TD>`, adding the data for that cell, and then closing the cell with the ending cell tag, `</TD>`. When you finish all of the cells for a row, you would then close the row with the ending row tag, `</TR>`. Then, for each new row, you would repeat the process of beginning the row, building each cell in the row, and closing the row.

The following table is an example of a basic table with three rows and two columns of data.

| | |
|--------|--------|
| Data 1 | Data 2 |
| Data 3 | Data 4 |
| Data 5 | Data 6 |

The codes that generated this table look like this:

```
<TABLE>
<TR>
  <TD>Data 1</TD>
  <TD>Data 2</TD>
```

```

</TR>
<TR>
  <TD>Data 3</TD>
  <TD>Data 4</TD>
</TR>
<TR>
  <TD>Data 5</TD>
  <TD>Data 6</TD>
</TR>
</TABLE>

```

This table contains no border, title, or headings. If you wish to add any of these elements to your table, you need to include additional HTML codes. The codes for these elements are explained in the next section.

Adding a border, title, and headings

In addition to the basic table tags, several options are available for adding additional elements to your table. For example, if you add a border, title, and column headings to the table in the previous section, the table would then resemble the following:

| TABLE TITLE | |
|-------------|----------|
| Column A | Column B |
| Data 1 | Data 2 |
| Data 3 | Data 4 |
| Data 5 | Data 6 |

The following codes generated the border, TABLE TITLE, and Column A and Column B headings for this table:

```

<TABLE BORDER="1">
  <TR>
    <TH COLSPAN="2">
      <H3><BR>TABLE TITLE</H3>
    </TH>
  </TR>
  <TR>
    <TH>Column A</TH>
    <TH>Column B</TH>

```

Note: If you wish to view the codes that generated the Data 1 through Data 6 cells, refer to the previous section.

Notice that the beginning table tag, `<TABLE>`, now includes the border tag, `BORDER="5"`, which places a border around the table and frames each cell. The number that you ascribe to the border tag, `BORDER=n`, sets the width of the table border. Depending on how you design your table, you can then determine the border size that best suits your table and the overall design of your web page.

To add a title to your table, you would place the title and the attributes of that title between the row commands, `<TR>` and `</TR>`. The heading codes, `<TH>` and `</TH>`, define a heading cell and, by default, these codes center the heading and set it in bold type. However, if you want the title to span across the columns below it, you need to include the `COLSPAN=n` code. Since this table has two columns, the `COLSPAN="2"` code was necessary. To add emphasis to the header, you can use the header commands to make the text larger. In this table, notice that the `<H3>` and `</H3>` commands made the title larger. Finally, the `
` tag created a space above the title.

The individual column headings are also described by the heading codes, `<TH>` and `</TH>`. Since these codes, by default, center the heading and set it in bold type, no additional commands or attributes were included in the heading commands.

Polishing your table

To give your table a more polished look, you can include commands that will adjust the size of your table, add space in the cell, add space between rows, and align the data in a cell. Working with these commands is basically a process of trial and error to create the most appealing presentation of your information. The type of table that you create and the overall design of your web site will help you determine what works best for your table.

Some of the commands that enable you to customize your table include:

- The `WIDTH=n%` command sets the width of your table as a percentage of the screen. The letter `n` designates the percentage that you assign to this command. For example, if you want the width of your table to be one half the width of the screen, you would include the `WIDTH="50%"` command in the beginning table command.
- The `CELLPADDING=n` command adjusts the vertical dimension of the cells. The letter `n` designates the numerical value that you assign to this command.
- The `CELLSPACING=n` command sets the space or border around the cells. The letter `n` designates the numerical value that you assign to this command.
- The `ALIGN=(LEFT, RIGHT, or CENTER)` command will horizontally align the data in a cell. For example, if you wish to place the data in the center of each cell in a row, you would include the `ALIGN=CENTER` command within the row command.
- The `VALIGN=(TOP, MIDDLE, or BOTTOM)` command will vertically align the data in a cell. For example, if you wish to place the data in the center of each cell in a row, you would include the `ALIGN=MIDDLE` command within the row command.

In addition to the codes that were explained in the previous sections, the table below now includes some of these commands.

| TABLE TITLE | |
|-------------|----------|
| Column A | Column B |
| Data 1 | Data 2 |

The following codes, along with codes previously discussed, created this table:

```
<TABLE BORDER="5" WIDTH="50%" CELLPADDING="4"
CELLSPACING="3">
<TR>
<TH COLSPAN="2"><BR><H3>TABLE TITLE</H3>
</TH>
</TR>
<TR>
<TH>Column A</TH>
<TH>Column B</TH>
</TR>
<TR ALIGN="CENTER">
<TD>Data 1</TD>
<TD>Data 2</TD>
</TR>
</TABLE>
```

Notice that the TABLE command now includes the WIDTH="50%" command. This command extends the table across one half of the width of the text. Also, the CELLPADDING="4" command increases the vertical dimension of the cells, and the CELLSPACING="3" command increases the border around the cells. Finally, the ALIGN="CENTER" command places Data 1 and Data 2 in the center of the cell.

After you create your table, you can also create a link to another web page in one or more cells. To do this, you need only include the link commands between the <TD> and </TD> commands

ER" command places Data 1 and Data 2 in the center of the cell.

**GOVERNMENT DEGREE & PG COLLEGE FOR WOMEN
KARIMNAGAR
DEPARTMENT OF COMPUTER APPLICATIONS & SCIENCE**

**PROJECT REPORT
ON
CLASS ROOM DATA BASE**



BY

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UNDER SUPERVISION

**M.Kalpana
LECTURER IN COMPUTER SCIENCE & APPLICATIONS**

**GOVERNMENT DEGREE COLLEGE FOR WOMEN, KARIMNAGAR
ACADEMIC YEAR 2020-21**

TABLE

A table is perceived as a two-dimensional structure composed of rows and columns. A table is also called a relation. This is a simplified description of the most basic kind of a table. Certain considerations follow from this simplified description:

- the term row has several common synonyms e.g., record, vector
- the term column has several common synonyms e.g., field, property, attribute
- a column is usually identified by a name
- a column name can consist of a word, phrase or a numerical index
- the intersection of a row and column is a cell

The elements of a table may be grouped, segmented, or arranged in many different ways, and even nested recursively. Additionally, a table may include metadata, annotations, header, footer, or other ancillary features.

SIMPLE TABLE

The following illustrates a simple table with three columns and six rows. The first row is not counted, because it is only used to display the column names. This is traditionally called a "header row".

MULTI-DIMENSIONAL TABLE

A table containing rows with summary information. The summary information consists of subtotals that are combined from previous rows within the same column. The concept of dimension is also a part of basic terminology. Any simple table can be represented as a multi-dimensional table by normalizing the data values into ordered hierarchies.

QUERY

Query is a direct manipulating database language that uses a graphical approach. Query uses a graphical representation to solve the problems. The implementation of database, its interface, and its query language is a project far too ambitious for the scope of this book and for the objective and knowledge of the reader at the point. However, resting the problems and using the functional programming style at its best allows us to create an interesting tool for query processing. We need to decide what representation the program should use internally for a database. We could use either a list of cards and not of some of them each query accesses all the cards. It is not possible to add a query field. Since a query might access only a few fields, it is important for this access to be fast.

A Query returning two lists, the elements of the first containing the name of a member followed by his mail address, the elements of the order containing the name of the member followed by his email address, according to his preference.

Another query returning the state of received fees for a given period of time.

FORMS

Forms have existed for a significant amount of time, with historians of law have discovered preprinted legal forms the early 19th century that greatly simplified the task of drafting complaints and various other legal pleadings.

According to... CHARLES BABBAGE he believe that the form was conceived by mathematician and inventor.

A form is a document with fields in which to select, for a series of documents with similar contents. The document usually have the printed parts in common, possibly except for a serial number. Advantage of forms included

1. one has to write less
2. one is told or reminded what information has to be supplied
3. uniformly, for convenience in processing

A form on a computer allows for conveniently typing in the variable parts.

Forms, may be filled out in duplicate when the information gathered on the form needs to be distributed to several departments within an organisation.

REPORT

A Report is any informational work made with the specific intention of relaying information or recounting certain events in a widely. Written reports are documents which present focused, salient content to a specific audience. Reports are often used to display the result of an experiment, investigation, or inquiry. Reports use features such as graphics, images, voice, or specialised vocabulary in order to persuade that specific audience to undertake an action. Reports are not required to follow this pattern, and may use alternative patterns like the problem solution format. Additional elements often used to persuade readers include: heading to indicate

the topics, to more complex for including charts, tables, figures, pictures, tables of contents, and references.

| HTNO | STUDENTNAME | FATHERNAME | CASTE | PHONENO | ADDRESS |
|------|-------------|----------------|-------|------------|------------------|
| 2405 | mounika | kankaiah | BC | 9490589313 | ellanthakunta |
| 2407 | kalyani | kalidasu | Bc | 8341664663 | knr |
| 2413 | anusha | chary | Bc | 9010312605 | padmashali, st |
| 2415 | ramya | malaysham | Bc | 8374832389 | kothapelli |
| 2416 | amala | saraiah | Sc | 8008479089 | marripally |
| 2418 | padma | lachaiah | Sc | 9573891247 | kataram |
| 2419 | jeevitha | yellaiah | Sc | 9985254528 | chugurumamidi |
| 2420 | swarnalatha | bemaiah | Sc | 9652873774 | gopalraopat |
| 2424 | srilatha | rajamallaiah | Sc | 9494724189 | vanpally |
| 2428 | geetha | rajaiah | Sc | 9963558055 | knr |
| 2434 | shruthi | venkatesvarllu | Bc | 9908341951 | kamanpur |
| 2447 | sharvanthi | lachaiah | Sc | 9542241665 | ithupally |
| 2448 | anusha | parshaiah | Sc | 9550506010 | vannaram |
| 2453 | anusha | shankaraiah | Sc | 9247344617 | sulthanabad |
| 2456 | swetha | jayaraj | Bc | 9849421390 | knr, shubasnagar |
| 2457 | nandini | komuraiah | Sc | 8008477822 | eklaspur |
| 2458 | divya | anjaiah | Sc | 9848842659 | vijayapuri |
| 2459 | samyuktha | rajaiah | Sc | 9550317795 | knr, kashmirda |

GOVERNMENT DEGREE PG COLLEGE FOR WOMEN,
KARIMNAGAR

STUDENT RESULTS

| | | | |
|--------|------------------|------|----|
| HTNO | 2405 | | |
| AA | 56 | ENG | 42 |
| BST | 35 | BDPS | 47 |
| TEL | 47 | ECM | 37 |
| TOTAL | 227 | | |
| AVG | 37.8333333333333 | | |
| RESULT | PASS | | |

STUDENT RESULT

| HTNO | MARKS |
|--------|-------------------|
| AA | 50 |
| BST | 44 |
| TEL | 57 |
| ENG | 27 |
| BGPS | 42 |
| ECM | 69 |
| TOTAL | 286 |
| AVG | 34.57142857142857 |
| RESULT | PASS |

Govt. Degree College for Women, Karimnagar

JIGNASA STUDY PROJECT (Botany)

Medicinal Values of Bathukamma flowers

MENTOR:

D. Sujatha

Lecturer in Botany

SUBMITTED BY:

R. Anusha

P. Poojinitha

V. Shymala

K. Sahitya

Toobanashra

Introduction:

- Bathukamma is a floral festival celebrated in Telangana state in India.
- It has scientific support due to the medicinal values of flowers used.
- Bathukamma is a beautiful, colorful flowers arranged in the shape of temple gopuram and the flowers used in preparing Bathukamma has its unique medicinal values.

- There are some myths behind this festival.
- According to one myth, Goddess Gauri killed Mahishasura the demon, after the fight she went to sleep on the day of 'Aswayuja Padyami'.
- The devotees prayed her to wake up and she woke up on the Dashami the tenth day.
- Because of this, the festival is celebrated for nine days beginning from padyami of the month of Ashvayuja.

- Materials and methods:
- The survey was carried out in rural areas of Karimnagar District of Telangana.
- The flowers were identified with the help of district flora of karimnagar and rural people.
- The main of this survey is to focus on medicinal importance of these flowers.
- Flowers and leaves used for preparing Bathukamma help in preventing water-borne diseases.

Significance of Bathukamma:

- Bathukamma which is Telangana state festival represents cultural spirit of Telangana.
- It has scientific support due to the medicinal values of flowers used.
- It is beautiful colorful flowers arranged in the shape of temple gopuram and these flowers have medicinal value.
- These flowers have great quality of purifying water.

- The festival heralds the beauty of nature, its biodiversity.
- The flowers used for making Bathukamma are unique seasonal flowers.
- Bathukamma festival celebrations on each day, beginning from Pethra Amavasya till the Saddula Bathukamma are listed below.

Day 1 Engili pula Bathukamma

Day 2. Atkula Bathukamma

Day 3. Muddapappu Bathukamma

Day 4. Nanabiyyam Bathukamma

Day 5. Atla Bathukamma

Day 6. Aligina Bathukamma

-

Day 7. Vepakayala Bathukamma

Day 8. Vennamuddala Bathukamma

Day 9. Saddula Bathukamma



Celosia argentea (Gunugu)

Family: Amaranthaceae

- It is used as in traditional medicine for Diarrhoea, dysentery, abdominal
- It has the medicinal properties:
- Antibacterial, Anti-inflammatory,
- Anti-diabetic, wound healing, antioxidant.



- *Cassia auriculata* (Tangedu)
- Family: Caesalpinaceae
- Its roots, flowers, flower buds, barks are used to treat various diseases.
- It is used to treat fever, diseases related to urinary system and constipation.
- It is mainly used as a blood purifier.



- Cucurbita maxima: (Gummadi)
- Family : Cucurbitaceae
- It is used as an antiinflammatory, antiviral, analgesic urinary disorders, anti ulcer, antidiabetic and antioxidant.



- Impatiens balsamina (Gorinta)
- Family: Balsaminaceae
- It has antibiotic activity against fungi and Bacteria, snakebite.
- The flower is applied to burnss.
- The flowers are crushed and mixed with alum to produce an orange dye.



- *Tagetes erecta* (Mexican marigold)
- Family: Asteraceae
- It is called as banthi in telugu.
- It used in ulcers, laxation, eye diseases, kidney trouble, muscular pain, Rheumatism, Bronchitis etc.
- It also exhibits antibacterial activity.
- The whole plant is anthelmintic, aromatic digestive, diuretic and sedative.



- Celosia cristata (Pattukuchu)
- Family: Amaranthaceae
- It is useful in treatment of piles, headache, wounds, dysentery, cataract, Diarrhea, Herpes.
- It cures bloody stool, Leucorrhoea, ophthalmic, uterine bleeding.



- *Mirabilis jalapa* (4 clock)
- It is called as Rudraksha in telugu.
- Family: Nyctaginaceae.
- It has anti-inflamamtory and Anti viral activity.



- Ipomoea nil (Katlapulu)
- Family: Convolvulaceae
- It is used in the treatment of oedema, oliguria, ascariasis and constipation.
- The seed also used as a contraceptive in Korea.



Gomphrena globosa (Poka banthi)

Family: Amaranthaceae

- It is used to treat bronchitis, cough, dysentery, tuberculosis and asthma.



- *Chrysanthemum indicum* (Chamanthi)
- Family: Asteraceae
- It is used to treat chest pain, high blood pressure, fever, cold, headache, dizziness and swelling.
- It can help the body fight off a range of infections including streptococcal and staphylococcal infections.



- Conclusion:
- The primary objective of this project is to summarize information on medicinal secrets of Bathukamma flowers, the floral festival of Telangana.

DEPARTMENT OF HISTORY

B.A 1st YEAR E/M

STUDENT STUDY PROJECT

TOPIC: UNITY IN DIVERSITY

NAME OF THE STUDENTS:

1. SUMAYYA ARSHEEN
2. MALEEHA SULTANA
3. NEHA FATHIMA
4. ROHINI
5. PRIYANKA
6. KEERTHI PRIYA

GUIDED BY

RADHA

University
in

University



Unity in Diversity has been one of the great characteristics of our nation which has bind people of all religions together in one bond of humanity. Unity in Diversity concept in India gives everyone a strong message that nothing is without unity. Living together with love and harmony provides the real essence of life.

The term unity in Diversity relates to the state of togetherness or integrity despite the presence of infinite diversity. Unity in Diversity is based on the concept where the individual has variations in physical qualities, skin colour, castes, creed, cultural and religious traditions etc are not seen as a dispute.

India Today is a country of various cultures, races, languages and religions. It is a land of Unity in Diversity, where people of different lifestyles and manners live together. They belong to different religions and faiths in God. In spite of these diversity, they live together with the bond of humanity and brotherhood. Unity in Diversity is the distinct feature of India which makes it famous all around the world.



Generally, people in India are following the great old Indian culture of being tolerant and absorbing which make them assimilating in nature. Unity in diversity in almost all aspects of the society has become source and strength and wealth all through the country.

People of all religions do worship in different ways by following their own rituals and beliefs which represents the existence of underlying uniformity. Unity in Diversity promotes spirit of harmony and brotherhood, among people beyond their considerations of various diversities.

India is famous for its rich cultural heritages which are because of people of various religions. People belong to various cultures give rise to the various lifestyles on the basis of their interest and belief. It again give rise to the growth in various professional areas like music, fine arts, drama, dance (classical, folk etc), theatre sculpture etc. each other. All the religious Indian sculptures are the great source of spiritual wisdom to the people.



Unity  **Diversity**



There are rishis, maharishis, yogis, priests, father etc in almost all the religions following their own spiritual traditions according to their religious scriptures.

Hindi is a mother language in India however many other dialects and languages are spoken by the people of different religious and regions (such as English, Urdu, Sanskrit, Bhojpuri, Bihari, Punjabi, Marathi, Bengali, Odia, Gujarati, Kashmiri, etc); however everyone feels proud to be the citizen of great India.

The phrase 'Unity in Diversity' was given by "Pandit Jawaharlal Nehru."

Our ability to reach 'Unity in Diversity' will be the beauty and the test of our civilization

Said by "Mahatma Gandhi."

INDIA

is a country providing the

fact of Unity in Diversity. People of various religions and castes have managed to live together for many years without any problem. India is decorated by the high mountains, valleys, oceans, famous rivers, streams, forests, deserts, ancient culture and tradition and most importantly Unity in Diversity. People here belong to their own race, religion and language however they all have similar characteristics of humanity which makes them able to live together.

Unity in Diversity is a concept which signifies the uniformity among people of different culture and dissimilar thoughts and ideologies. Unity in Diversity could also be as explained through a garland where the flowers which belong to different varieties and colors are strung into a garland which belong to different a garland where the flowers which belong which not only enhances the beauty of the flowers but it also increases their value.

Importance of Unity in Diversity :-

- Unity in Diversity boosts moral of people at workplace, organization and Community.
- It helps in abiding spirit de corps, relationships, teamwork among people - thus improve performance, quality of work, productivity and lifestyle.
- It makes communication effective even in hot times.
- Keeps people away from social problems and help to manage conflicts easily.
- Improves healthy human relations and protects equal human rights for all.
- Unity in Diversity in India provides source of tourism. People of diverse cultures, traditions, cuisines, religions and clothing attract more visitors and tourists from all across the world.
- Source of skilled and advance professionals in various areas to the country.
- It helps to be rich in agricultural area through different crops and thus economy growth.

⇒ It gives rise to the habit of national integration among people of the country even after being diverse in various ways.

⇒ It gives value to the rich heritages of country as well as strengthens and enriches the cultural heritage of India.

Disadvantages of Unity in Diversity ::

⇒ It may give rise to the various social tensions among people of different states and linguistic origin.

⇒ It gives rise to the growth of corruption and illiteracy in many areas of the country.

⇒ Due to Underdeveloped infrastructure, power shortage, roads etc.

“UNITY IN DIVERSITY” shows

‘ONE FOR ALL’ AND ‘ALL FOR ONE’.

MAIN REASONS FOR UNITY IN DIVERSITY

1. INDIA :-

India has witnessed a history of civilising culture going rise to new forms. Diversity can be felt in the number of castes, groups, religions, languages, occupations and social political groups.

The Diversity can be readily attributed to the past comprising of years of invasion, inter-casting, invasions and compared to isolation through the natural geographical boundaries.

The period of struggle and in the current scenario standing with a vast population of

2.33 India

India presents the scope of different cultures and languages, we see the rise of faith going from the pre-historic period to the vedic period.

India has been the best example to prove the concept for many years.

They are in the category of the world's
developed countries and have population,
technology and scientific skills, some of which
are vital inputs, especially in some projects
linked with the region.

Country's involvement with other donors
will help in providing funds to be the source of
technical assistance with. They are interested in
also providing a better way of working.

Since with the involvement of other
donors is still in progress, it is also, especially
regions are experiencing such situation that is
very close to each other.

Some countries are also interested in
the situation and because some of the countries are
in the
state.

In a number of countries and the involvement
of assistance, the management of resources
and providing a better way of working in
equal opportunities in the provision of
to ensure a better working.

They mix it up, adopting their social, biological characters with local population exchanges and expressing new forms of customs and social designs, results in diverse physical forms and lifestyles.

People's involvement with such a diverse language family proves to be the strength of India's cultural roots. Equal distribution is still prevalent in India's tribal Diversity.

Along with the immigration of other strong religious communities in India, especially Islam and Christianity which persisted for a long time in India.

Other Religions like Hinduism, Sikhism, Buddhism and Jainism and so on developed in

India.

The merges of customs and the development of teachings, the development of tolerance and solidarity in which the land of India is equal distribution is still prevalent in in India's tribal Diversity.

IMPORTANCE OF UNITY IN DIVERSITY :-

Unity in Diversity is very important for any country in the following ways as mentioned Below :

For National Integration :

Unity in Diversity is very important for a country because it is very easy to disintegrate people with different views and ideologies.

If there is unity among the people despite their differences, it will always be impossible for a force to disintegrate the Nation.

The unity of citizens plays a very important role in the development of the country because the country which is integrated will always move on the path of development.

The unity of citizens plays a very important role in the development of the country because the country which is integrated will always move on the path of Development.

For Development and Growth :-

Unity in Diversity plays an important role in the development of the country because the country which is integrated will always move on the path of development.

It will face fewer internal issues than a country that is socially unstable and divided on different terms.

For Global Recognition :-

A country that is diverse, but still united, not only adds value to the nation but is also respected on international platforms.

It sets an example globally by displaying the values and morals of the citizens of a country who respect and support each other despite being from different backgrounds and cultures.

For Peaceful CO-EXISTENCE :-

Diversity can also be the cause of internal conflicts but unity in Diversity plays a very important role in mending people with diverse culture and backgrounds.

15/11/2024, THU (10:10 TO UNITY 11)

11/11/2024 :-

→ Geographical Unity :

It means unity around the geographical boundaries of the country.

→ Religious Unity :

It means unity among various religious groups, such as Hindu, Muslim, Christian etc.

All these religions have the same principles like kindness, honesty, the value of life, better in visible person etc.

→ Language Integration :

It shows are many languages across the country, having a link language solves plurality of languages.

→ Cultural Unity :

It means unity among various castes, sub-castes and communities. Despite the vastness, most orient cultures have unity.



*"Diversity is the one thing
we all have in common.
Celebrate it every day."*



*Unity in
Diversity*

⇒ Political Unity :

A Democratic system of politics that calls for political alliances at its level.

⇒ Emotional Unity :

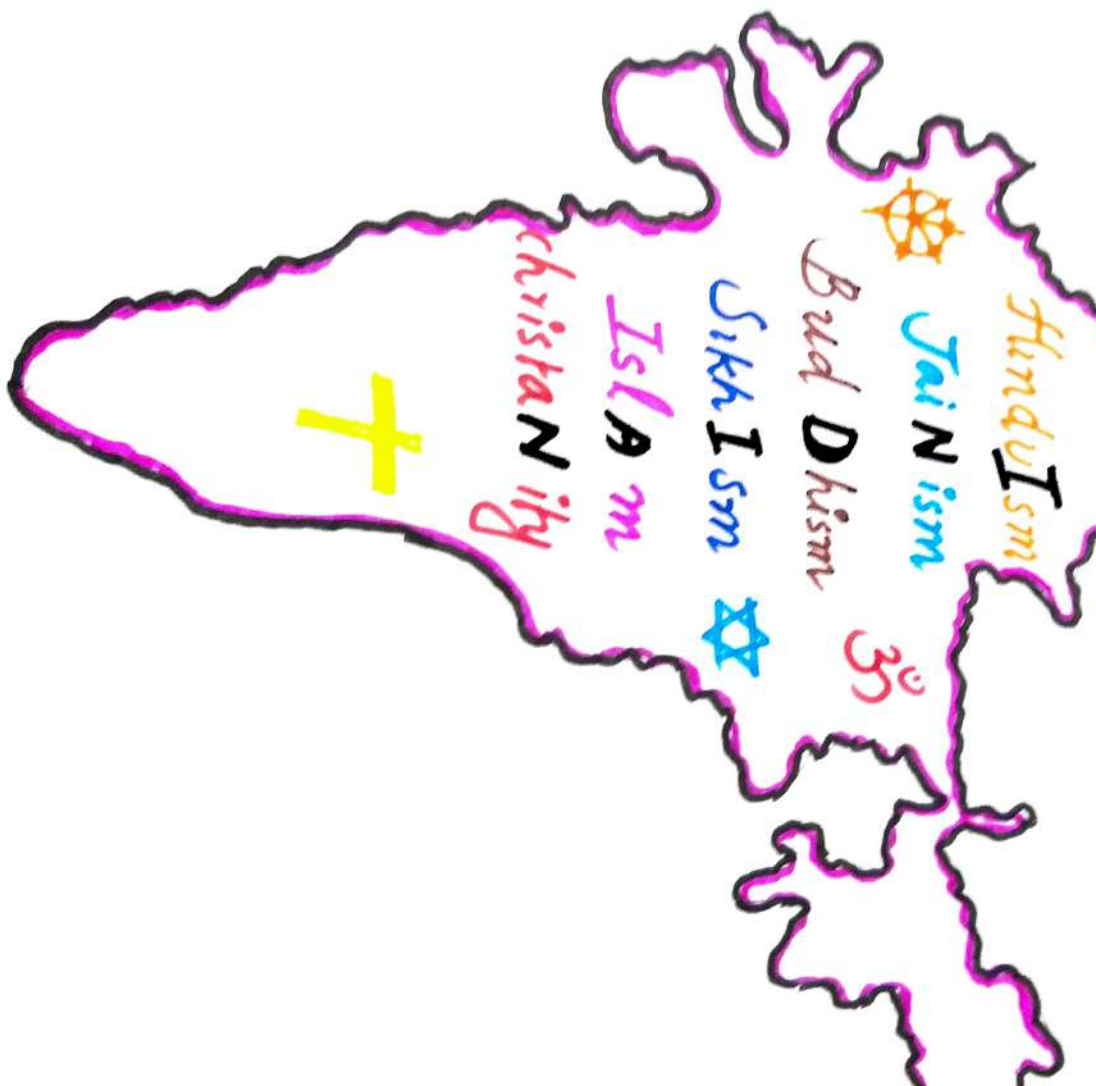
This means that there should be an emotional bond and they should be close to each other...

CONCLUSION :-

Unity in Diversity teaches us that though we are from different caste, creed or race but these differences could not keep us apart and we are always united for the implement of our nation. It is most unique phenomenon which makes the nation integrated and strong but it also keeps alive the age old Indian Tradition of coexistence with love, peace, dignity and respect.

The difference in culture, customs, festivals, music and dance makes the country as a land of vibrancy and makes India an incredible country in the world.

Secularism in India



Jignasa Project

On

Neutralizing Ability Of Antacids

by

P.Supriya, G.Sumitra, B.Sandhya, A.Mamatha, K.Samatha



Supervisor

G.Jyothi

Department of Chemistry

Govt. Degree College for Women

Karimnagar

Contents

- **Aim of the Project**
- **Introduction**
- **Theory**
- **Requirements**
- **Procedure**
- **Observations**
- **Result**
- **Bibliography**

Aim of the Project

The purpose of this experiment is to determine which antacid could neutralize the most acid produced in stomach. We came to know a lot of people in and around our house are using antacids, so we got interest to experimental study about antacids.

The information gained from this study will help people to know which antacid works better and give them quick relief. That can save consumers money and provide better health.

Introduction

Digestion is a complex of reactions of gastric fluid, which includes digestive enzymes and hydrochloric acid. The acidic environment of the stomach makes it possible for inactive forms of digestive enzymes to be converted into active forms (i.e. pepsinogen into pepsin), and acid is also needed to dissolve minerals and kill bacteria that may enter the stomach along with food.

- Gastric acid or fluid, formed in the stomach. It has a pH of 1.5 to 3.5 and is composed of 0.5 % hydrochloric acid (HCl). It is produced by cells lining the stomach, which are coupled to systems to increase acid production when needed. Other cells in the stomach produce bicarbonate to buffer the acid, ensuring the pH does not drop too low (acid reduces pH).
- However, sometimes (due to intake of much or spicy food) the stomach begins to secrete an excess of HCl. This leads to a condition known as Gastric Hyperacidity. This results in the unpleasant symptoms of heartburn and may contribute to ulcer formation in the stomach lining.
- To counter this situation, substances like Antacids have been developed. Antacids are weak bases (most commonly bicarbonates, hydroxides, and carbonates) that neutralize excess stomach acid and thus alleviate symptoms of heartburn. The general neutralization reaction is:



- The hydrochloric acid solution used in this experiment (0.1 M) approximates the acidic conditions of the human stomach, which is typically 0.4 to 0.5% HCl by mass (pH ~ 1). Antacids help people who have or get heartburn. The pH of acids ranges from 0-6.9 (below 7).

- Stomach acid is very dangerous. If a person was to have an ulcer and the stomach acid was to escape it would irritate their other organs. Stomach acid or gastric acid is highly acidic and has a pH of 1.6. Stomach acid is hydrochloric acid produced by the stomach. If there is too much stomach acid it can cause heartburn. Heartburn is when stomach acid is produced in abnormal amounts or location. One of the symptoms of heartburn is a burning feeling in the chest or abdomen.
- FOODS CONTAINING ACIDS :

Almost all foods and drinks and even medicines have ingredients that are different acids. Here are some examples: Aspirin (acetylsalicylic acid), Orange juice (ascorbic acid/Vitamin C), Sour Milk (lactic acid), Soda Water (carbonic acid), Vinegar (acetic acid), Apples (malic acid), and Spinach (oxalic acid).

Antacid:

An antacid is any substance that can neutralize an acid. All antacids are bases. A base is any substance that can neutralize an acid. The pH of a base is 7.1-14(above 7).

- All antacids have chemical in them called a buffer. When an antacid is mixed with an acid the buffer tries to even out the acidity and that is how stomach acid gets neutralized.

In an antacid it is not the name brand that tells how well it works it is something called an active ingredient. Not all antacids have a different active ingredient. Some have one of the same active ingredients and some have all of the same active ingredients. Almost all the antacids that have the same active ingredient work the same amount as the other. The active ingredient of most of the antacids is bases of calcium, magnesium, aluminium.

Action Mechanism

- Antacids perform neutralization reaction, i.e. they buffer gastric acid, raising the pH to reduce acidity in the stomach. When gastric hydrochloric acid reaches the nerves in the gastrointestinal mucosa, they signal pain to the central nervous system. This happens when these nerves are exposed, as in peptic ulcers.
- The gastric acid may also reach ulcers in the esophagus or the duodenum. Other mechanisms may contribute, such as the effect of aluminium ions inhibiting smooth muscle cell contraction and delaying gastric emptying. Antacids are commonly used to help neutralize. Antacids are commonly used to help neutralize stomach acid.
- Antacids are bases with a pH above 7.0 that chemically react with acids to neutralize them. The action of antacids is based on the fact that a base reacts with acid to form salt and water.

Side Effects

Aluminium hydroxide: may lead to the formation of insoluble aluminium phosphate complexes, with a risk for hypophosphate and osteomalacia.

- Although aluminium has a low gastrointestinal absorption, accumulation may occur in the presence of renal insufficiency. Aluminium containing drugs may cause constipation.
- Magnesium hydroxide: has a laxative property. Magnesium may accumulate in patients with renal failure leading to hypo magnesemia, with cardiovascular and neurological complications.

- Calcium: compounds containing calcium may increase calcium output in the urine, which might be associated to renal stones. Calcium salts may cause constipation.

Carbonate: regular high doses may cause alkalosis, which in turn may result in altered excretion of other drugs, and kidney stones.

Experiment Design:

Materials required:

- Burette
- Pipette
- Conical flask
- Measuring jar
- Concentrated hydrochloric acid
- Methyl orange
- Antacid samples

Procedure:

- **Preparation of 0.1 N HCl solution:**

8.2 ml of concentrated HCl is diluted to 1000 ml (1 litre)

- **Preparation of 0.1 N Na₂CO₃ :**

Weighing 1.325 g of sodium bicarbonate and then dissolved it in distilled water and prepared exactly 250 ml of 0.1 N solution.

- **Standardization of HCl solution.**

Take 20 ml of 0.1 N Na_2CO_3 solution in a conical flask and add 2 drops of methyl orange indicator and titrated against HCl solution. The end point noted and calculated the normality of HCL.

After the reaction of HCl with Antacid remaining is titrated against Base :

- **Powder the various sample of antacid tablets and weigh 10 mg of each**
- Take 20 ml of standardized HCl solution in the conical flask; add the weighed samples to it.
- Add two drops of methyl orange and warm the flask till most of the powder dissolves. Filter off the insoluble material.
- Titrate the solution against the standardized Na_2CO_3 solution till a permanent red tinge appears.
- Noted the amount of base used for titration and noted the reduction in the amount of base used. Repeated the experiment with different antacids.

Observations and Calculations

1. Standardization of HCl solution

| S. No. | Volume of Na_2CO_3 solution | Initial burette readings | Final burette readings | Volume of acid used (in ml) |
|--------|---|--------------------------|------------------------|-----------------------------|
| 1 | 20ml | 0.0 ml | 19 ml | 19.0 |
| 2 | 20ml | 0.0 ml | 18.5 ml | 18.5. |
| 3 | 20ml | 0.0 ml | 18.5 ml | 18.5.0 |

Concordant reading - 18.5 ml

- Applying Normality equation

- $N_1V_1(\text{acid}) = N_2V_2(\text{base})$
- $N \times 18.5 = 0.1 \text{ N} \times 20$
- Normality of HCl solution is 0.11 N

Neutralization of antacid with standardized HCl Analysis of antacid tablets

Weight of the antacid tablet powder— 10 mg,

Volume of HCl solution added— 20.0 ml

| S. No. | Antacid | Initial reading | Final reading | Volume of Na ₂ CO ₃ |
|--------|---------|-----------------|---------------|---|
| 1 | Gelusil | 0.0 ml | 15.0 ml | 15 ml |
| 2 | Pan D | 0.0 ml | 20.0 ml | 20 ml |
| 3 | Dynacid | 0.0 ml | 7.0 ml | 7.0 ml |

Result:

The most effective antacid out of the taken samples is Dynacid.

Conclusion:

Based on the observations and result antacids reduces the acidity of gastric fluid in the stomach to some extent. Reduction in acidity causes no harm to the mucous membrane of digestive system.

PRECAUTIONS

- All apparatus should be clean and washed properly. Burette and pipette must be rinsed with the respective solution to be put in them.
- Air bubbles must be removed from the burette and jet. Last drop from the pipette should not be removed by blowing.
- The flask should not be rinsed with any of the solution, which are being titrated.

Bibliography

- Wikipedia -the free encyclopedia
- Website : <http://www.icbse.com>

Physical Chemistry by Glastone.



Awarded for - Outstanding scientific work
in the field of
"Mathematics"

Country - Norway

Presented by - Government of Norway

First Awarded - '2003'

official website - abelprize.no



The able prize awarded in the atrium of the Domus Medica building of the university of Oslo faculty of law, where the Nobel prize was formerly awarded.

The Abel prize is a Norwegian prize awarded annually by the government of Norway to one or more outstanding mathematicians.

Named after Norwegian mathematician "Niels Henrik Abel" (1802-1829) and modelled after the Nobel prize, the award was established in 2001 by the government of Norway and complements its sister prize in the humanities the "Hedberg prize" it comes with a monetary award of 6 million Norwegian kroner (NOK) (award € 600000).

The Nobel prize was awarded between 1947 and 1989. The prize board has also established an Abel Symposium, administered by the "Norwegian Mathematical Society".

HISTORY

The prize was first proposed to be part of the 1902 celebration of 100th anniversary of Abel's birth. Shortly before his death in 1899, the Norwegian mathematician Sophus Lie proposed establishing an Abel prize when he learned that Alfred Nobel's plan for annual prizes would not include a prize in mathematics.

King Oscar II was willing to finance a mathematics prize in 1902, and the mathematicians "Ludwig Sylow and Carl Størmer" drew up and statutes and rules for the proposed prize. However, Lie's influence waned after his death, and the dissolution of the union between Sweden and Norway in 1905 ended the first attempt to create the Abel prize.

After interest in the concept of the prize had risen in 2001, a working group was formed to develop a proposal, which was presented to the prime minister of "Norway in May". In August 2001, the Norwegian government announced that the prize would be awarded beginning in 2002, the two-hundredth anniversary of Abel's birth. Atle Selberg received an honorary Abel prize in 2002,

SELECTION CRITERIA

The Norwegian Academy of Science and Letters declares the winner of the Abel prize each March after recommendation by the Abel committee, which consists of five leading mathematicians. The committee is currently headed by John Rognes. The International Mathematical Union and the European Mathematical Society nominate members of the Abel Committee. The Norwegian Government gave the prize an initial funding of NOK 200 million (about US \$23 million) in 2001. The funding is controlled by the Board, which consists of members elected by the Norwegian Academy of Science and Letters.

Anyone may submit a nomination, but self-nomination is not allowed. The nominee must be alive however, if the awardee dies after being declared as the winner, the prize is awarded posthumously. The Abel laureate is decided by the Norwegian Academy of Science and Letters based on the recommendation of the Abel Committee.

Srinivasa Varadhan

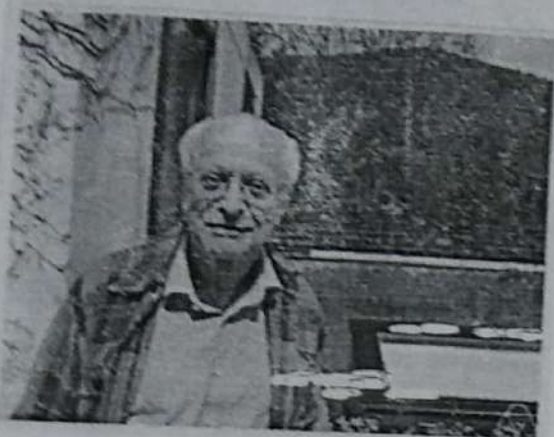


Sathamangalam Ranga Iyengar Srinivasa Varadhan - FRS (born 2 January 1940) is an Indian-American mathematician who is known for his fundamental contributions to probability theory and in particular for creating a unified theory of large deviations.

Since 2009 he has been one of the Jury Chair for the Infosys Prize in the discipline of Mathematical Sciences.

Varadhan is currently a professor at the Courant Institute. He is known for his work with Daniel W. Stroock on diffusion processes, and for his work on large deviations with Monroe D. Donsker.

Jean-Pierre Serre



Born : 15 September, 1926

Residence Paris, France

Nationality French

Fields Mathematics

Institutions Centre National de la Recherche Scientifique

Notable Awards

Fields Medal (1954)

Balzan prize (1985)

CNRS Gold medal (1987)

Steel prize (1995)

wolf prize in Mathematics (2000)

-Abel prize (2003)

Sir Andrew Wiles



- Born — Andrew John Wiles
- Nationality — British
- Fields — Mathematics
- Institutions — University of Oxford
Princeton University
- Thesis — Reciprocity Lawe and
the conjecture of Birch and
swinnerton-Dyer
- Notable Awards — FRS (1989)
Rolf Schock prize (1995)
Wolf prize (1995)
Cole prize (1997)
Abel prize (2016)

Maths Project

The Power of Pythagoras

Submitted to:

Saleha Mam.

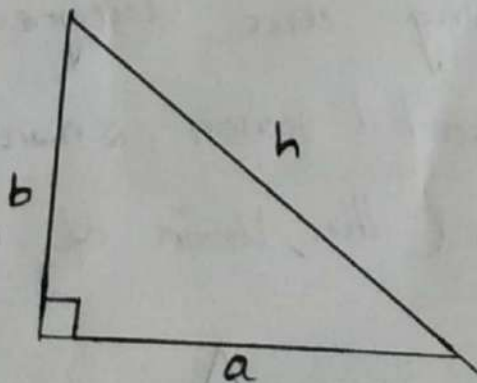
THE POWER OF PYTHAGORAS

* pythagoras and right-angled triangles :-

The great Mathematician pythagoras is best remembered for starting a relationship (now known as pythagoras' theorem, although it was certainly not only theorem) connecting the lengths of the sides of right-angled triangles.

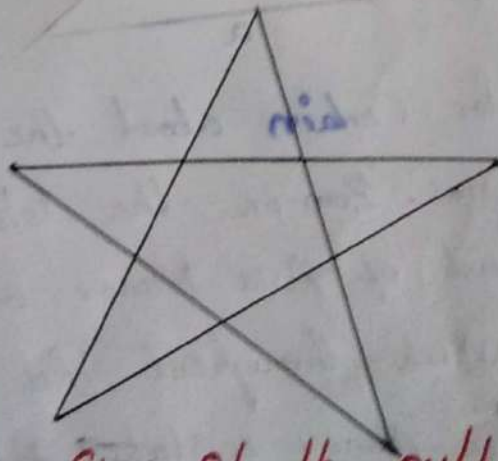
pythagoras' theorem states that, in a right-angled triangle with sides a , b & h as shown,

$$h^2 = a^2 + b^2$$



Little is known for certain about the Greek Mathematician pythagoras. Born on the island of Samos, just off the coast of Asia Minor, around 570 BC, he travelled much throughout his life, notably in Egypt, Asia Minor & Italy. He eventually

established a Community of Scholars at Croton, a Greek Settlement in what is now Southern Italy. They formed a Select Brotherhood Sharing philosophical & political ideals as well as their study of Mathematics, and lived Under a strict code of discipline, temperance, purity and obedience were their watch words. They were a Secret Society, and the pentagram was used as a Sign of recognition. Although women were forbidden by law from attending public meetings many went to pythagoras's lectures, and a few were even admitted to the inner circle. The pythagoreans believed that Mathematics was the key to the world. Every thing was assigned a Number. For example, 1 represented reason, 2 man, 3 woman, 4 justice and 5 Marriage (the Union of 2 & 3).



The Sign of the pythagoreans

Pythagoras' influence continued after his death and his followers developed a custom of assigning all work to 'the Master' (Pythagoras). This has made it very difficult to know how much of the work assigned to him was his own, and how much his students.

It is believed that the theorem for which Pythagoras is best remembered genuinely is his own work. It can be stated as,

"The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides."

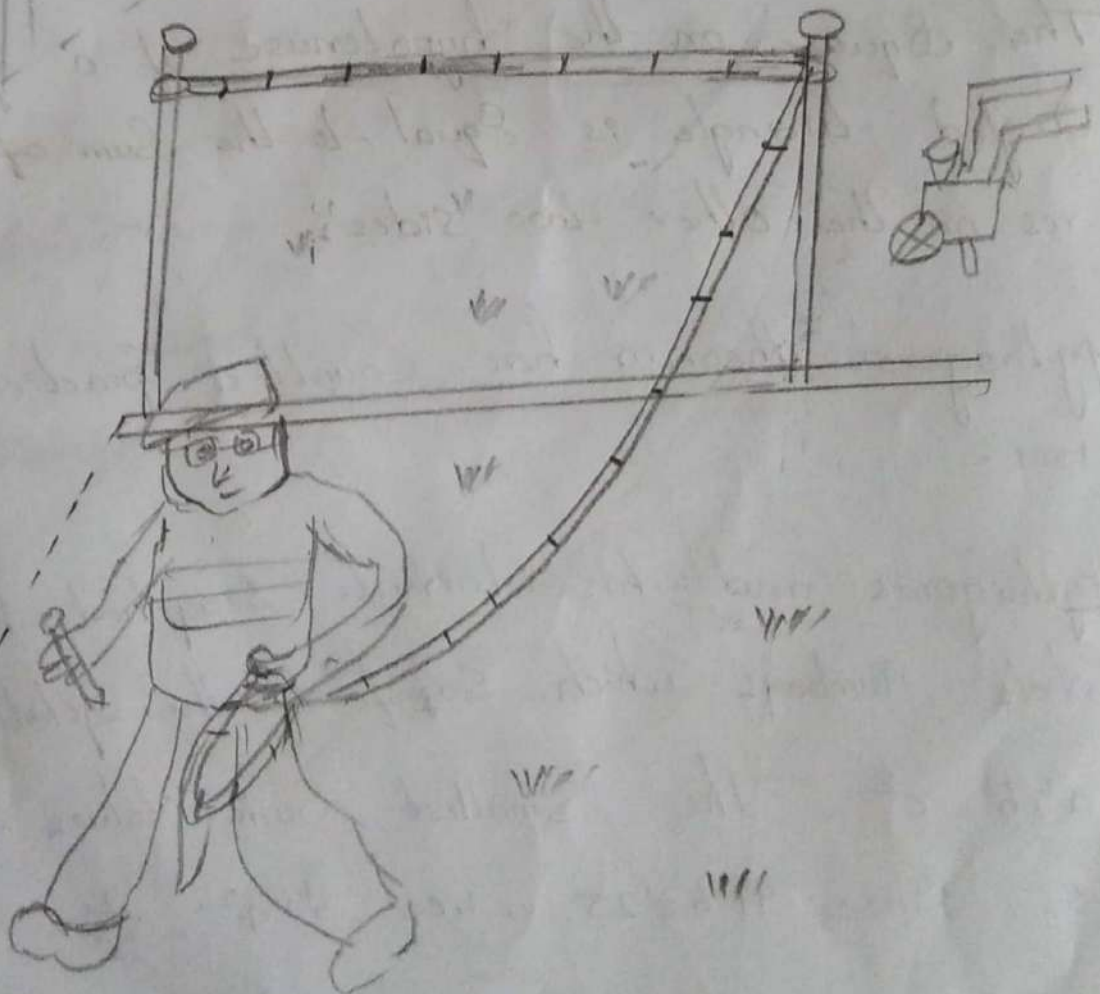
Pythagoras' theorem has countless practical applications.

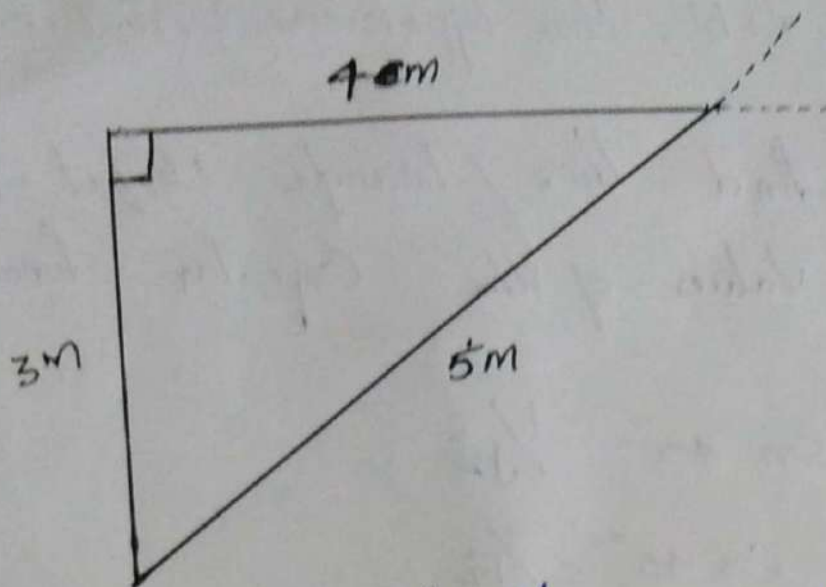
Pythagoras and his students searched for set of whole numbers which satisfied the relationship

$a^2 + b^2 = c^2$. The smallest such values are 3, 4 & 5,

since $9 + 16 = 25$, i.e., $3^2 + 4^2 = 5^2$.

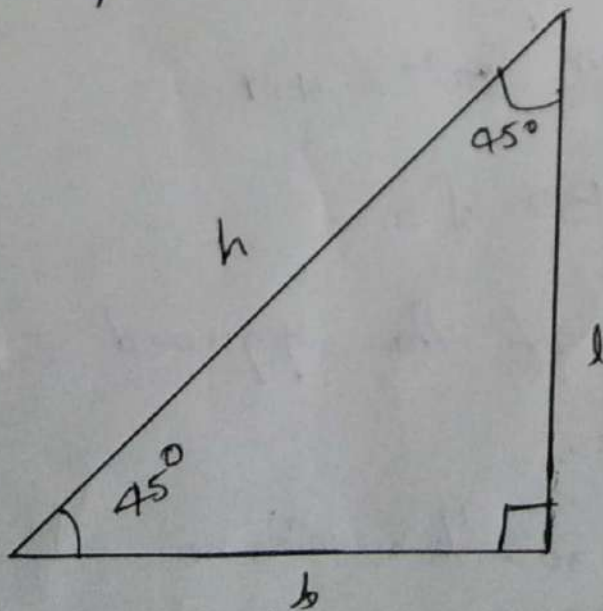
Set of Numbers like this are known as pythagorean
triples. "since they satisfy the relationship, any
triangle with these measurements must be right
-angled. This fact is still used for making out
Sportsfields: a rope marked in the correct propor-
-tions and arranged in a triangle will form a
right-angle.





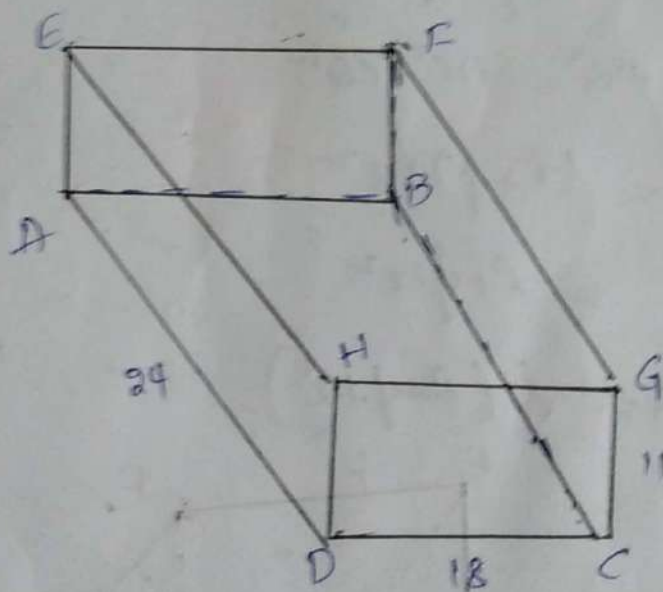
Since any triangle with these proportions must be right-angled, it follows that $(6, 8, 10)$, $(9, 12, 15)$ and $(12, 16, 20)$ must also be pythagorean triples.

The pythagoreans could see that the hypotenuse of an isosceles right-angled triangle with two equal sides of length 1 unit would not be a whole number.



Example:-

- a) A frame is to be constructed from thirteen metal rods. Twelve of the rods are welded together to form a cuboid. The thirteenth is fitted as a cross piece between opposite corners, thus increasing the rigidity of the structure.
- If the cuboid is made from rods measuring 18cm, 24cm & 11cm, what is the length of the cross piece?



The diagonal AG is the hypotenuse of the angled triangle AGC.

$$\text{i.e., } AG^2 = AC^2 + CG^2$$

AC is the hypotenuse of the right-angled triangle ADC.

i.e.,

$$AC^2 = AD^2 + CD^2$$

$$AC = 30$$

$$\text{and } AG = \sqrt{(900 + 121)} = 31.95 \text{ cm}$$

(b) The frames are made to a variety of sizes. If the rods used to form the cuboid measure x cm, y cm, and z cm, find an expression for the length of the cross piece.

Generalising this result, if $AD = x$, $CD = y$, $CG = z$

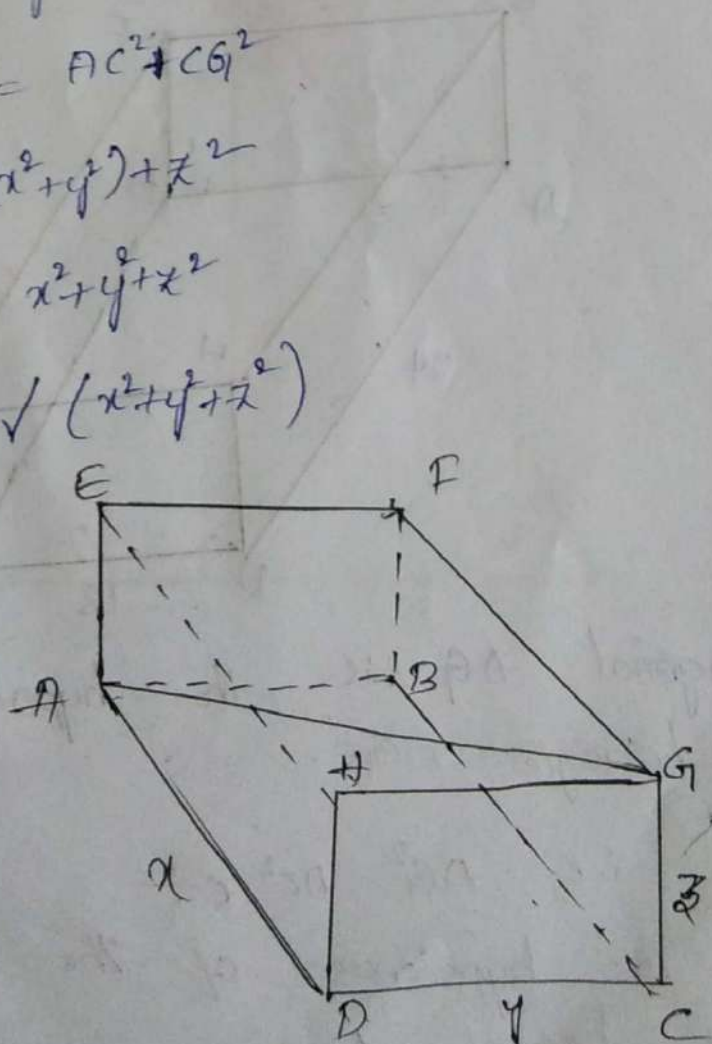
$$\text{then } AC^2 = x^2 + y^2$$

$$\text{So, } AG^2 = AC^2 + CG^2$$

$$= (x^2 + y^2) + z^2$$

$$= x^2 + y^2 + z^2$$

$$AG = \sqrt{(x^2 + y^2 + z^2)}$$



If d is the long diagonal of a cuboid of dimensions a, b & c , then,

$$d^2 = a^2 + b^2 + c^2$$

