

THE SCHOLAR

COLLEGE MAGAZINE 2019-20



Enter to Learn

Leave to Serve

GOVERNMENT OF TELANGANA
COMMISSIONERATE OF COLLEGE EDUCATION (T.S.)



PINGLE GOVT. COLLEGE FOR WOMEN

Accredited by NAAC with 'A' Grade & ISO 9001:2015 Certified Institution
Permanently Affiliated to Kakatiya University

WADDEPALLY, HANUMAKONDA - 506370, T.S.
website: www.gdcts.cgg.gov.in/hanamkondawomen.edu



Ch. Praneetha secured State 1st Prize in NYK Youth Parliament Competitions and participated in National Level Youth Parliament Competitions



COLLEGE MAGAZINE 2019-20

Chief Advisor

Dr. G. RajaReddy
M.Com., MBA, M.Phil., Ph.D., M. Ed.
Principal

Convener & Chief Editor

Dr. G. Suhasini
M.Sc., NET., Ph.D., PGDS, PGDEPM
Asst. Professor of Zoology

Magazine Committee

Dr. Shabeeh Fathima, Asst. Professor of English
Dr. M. Shamala, Asst. Professor of Telugu
Dr. D. Anathalaxmi, Asst. Professor of Hindi
Smt. K. Rajeshwari, Asst. Professor of Sanskrit
Dr. B. Madhavi, Asst. Professor of Mathematics
G. Savitri, Asst. Professor of Physics
Dr. M. Aruna, Asst. Professor of Chemistry
Dr. D. Parvathi, Asst. Professor of Botany
Dr. R. Ravi, Asst. Professor of Commerce
Smt. B. Sumalatha, Asst. Professor of History
Smt. V. Rama, Asst. Professor of Economics
Smt. G. Vijaya, Asst. Professor of Political science
Mr. J. Ashok Reddy, Lecturer in Physical Education

Editorial Board:

Dr. D. Ramakrishna Reddy, Asst. Professor of Public Administration
Dr. G. Renuka, Asst. Professor of Microbiology
Mr. B. Jagadish, Asst. Professor of Library Sciences

Technical Assistance:

Md. Rafi, TSKC Mentor



Principal
Chief Advisor

Dr. G. RAJA REDDY

M.Com., MBA, M.Phil., Ph.D., B.Ed.

PRINCIPAL DESK

I have the privilege to welcome you all to this great temple of learning. This is one of the prestigious women's colleges in the entire Telangana state that provides unique opportunities for the all-round development of young minds in a secular and conducive environment.

In this present-day context life is full of challenges and growing competitions, it is quality and excellence that matters. We all are aware that academic success or failure is closely linked with the multiple approaches that we are able to provide and maintain in our day-to-day teaching and learning activities. In this context, Pingle Government College for Women is recredited by NAAC with 'A' grade and an ISO 9000:2015 certified Institution with well-equipped Research Centre, library, science labs, computers science labs, TSK Clab, English language lab, Auditorium and an outdoor and indoor gym for all round development of the students.

Team work is the hallmark of this Institution. In order to achieve the prescribed destination, education must have twin paths; one is based on the development of certain knowledge and skill and the other leads to the development of humanistic virtue. I am sure with collaborative efforts we can achieve the targeted goals which in turn benefits the stakeholders who are the future leaders of the Nation.

"Education should be directed towards the moulding their personalities and to enhance their respect for fundamental rights and democratic freedom."

With sincere and warm regards.



Asst. Professor of Zoology
Convener and Chief Editor

DR. G. SUHASINI

M.Sc., NET., Ph.D., PGDS, PGDEPM.

FROM THE EDITOR'S DESK

Scholar, the college magazine is published to exhibit the creativity of the students and relive the memories made throughout the year. The Scholar, which is a record of events on the campus, will serve as a memory and reminds the happy days of the students, spent in this prestigious institution. The Scholar has been successful in extracting talents, ideas, skills from diverse fields. The team made it possible finally.

Institute that imparts both knowledge & wisdom to its stakeholders can only empower them holistically for a bright future.

I am greatly indebted to the Principal, Dr. G. Raja Reddy for reposing faith in me and giving me freedom to carry on with the project. I must express my heartfelt thanks to editorial committee Dr. D. Ramakrishna Reddy, Dr. G. Renuka and B. Jagadish for their immense support and all the faculty members and students for their scholarly contribution through articles and giving valuable suggestions during the compilation of this magazine "The Scholar". My thanks are due to Md. Rafi technical assistant without whose cooperation this could not have seen the light of the day.

ABOUT COLLEGE

Pingle Government College for Women, Waddepally, Hanamkonda, Warangal Urban, Telangana State has an illustrious and developmental history. It started with courses in Arts, Commerce and Science, and the building was donated by Pingle family in year 1965 with only 67 students and eleven members as staff. It witnessed continuous and consistent development in expanding the courses, in 1966-67, the college saw the introduction of the degree courses in B.A. (H.P.P), B.A. (E.P.P) and B.Sc. (B.Z.C) in both English and Telugu media and institution came under the Jurisdiction of Kakatiya University. The college has a history of fifty glorious years of growth and prosperity and celebrated Golden Jubilee in August, 2016.

In 1985, conventional courses in B.Com, B.Sc. (M.P.C) in 1994 B.Sc. (B.Z.C) in and in 1995 restructured courses like B.Sc. (Microbiology) and B.Com (Computers) were introduced. Thus the college has grown phenomenally catering to the diversified the needs and demands of the socio-economically weak women students. At present college is providing 17 U.G. and 7 P.G. courses and Certificate courses and one Add on Course, sponsored by UGC in Diploma in Front Office Management.

The college went through NAAC for the first time in 2005 and accredited with B++ grade and reaccredited in 2011 with B grade. Institution is striving hard to get additional funding to develop its infrastructure to meet the demands of increase in enrolments and enhance the quality of teaching by modern methodologies to suit the demands and later the needs of students for proper career guidance. College was sanctioned Rs. 4 crores under RUSA and identified as Model College. With additional funding in the form of Minor, Major and National Seminars to enhance and sustain quality.

VISION & MISSION

Vision:

- To provide enriching, challenging and innovative education to socio-economically less-endowed section of women to culminate in main stream and participate in social growth and ensure inclusion.
- With the motto “Enter to learn and leave to serve”, it is the institution’s goal to facilitate the students to update their skills along with academics in order to make them more competent, self - sufficient and economically independent to face real time challenges at the end of course.
- To moulds the holistic personality of the students by virtue of creating awareness in life skills, moral values in order to fulfil the true sense of the college tagline “powered by intellect and driven by values”.
- Provide an environment for multifaceted development including academic, social cultural aspects and sports.

Mission:

- March towards Autonomy, CPE, CE and accomplish Mahila University Status gradually as college is identified as Model College under RUSA.
- To provide an environment, that nurtures inherent learning skills and all round personality development of student
- Respond to changing needs of the community, encourage appropriate skills to face the competitive world.
- Ensure committed leadership and continuous professional enrichment of staff within a participatory management process developing the overall personality and critical thinking to transfer to the students in turn.
- To inculcate moral values and social responsibility to students to ensure healthy as citizen to society.
- The Vision and Mission of the institution is to realize its goal in achieving encourage students in getting job certain graduate attributes when the students are ripened enough to leave the portals of their college.

ADMISSIONS - ADMISSION POLICY

Admission process is done through DOST (Degree Online Services, Telangana) which is managed by the Govt. of Telangana. The students can take admission online on their own with the help of mobile or through approaching MeeSeva Centres, Help Line Centre, constituted by the Commissioner of Collegiate Education, Telangana.

Our College has been working as Help Line Centre since the inception of DOST, i.e., from 2016 to till date.

Admissions are allotted on the merit cum reservation basis, in which SC, ST, BC, Minority, EBC will get their own reservations as per the existing government norms. As soon as the admission is confirmed, the student get SMS to his registered mobile.

The admission process takes in phase wise manner and student has to confirm her admission in the college by College Confirmation OTP, by following the fool proof online method.

At the end of the admission process the final confirmation list will be available to the respective colleges.

Now the student has to approach the college pay the stipulated fee and submit the original certificates and join the college.

DEPARTMENTS OF OUR COLLEGE

S. No	Name of the Department	S. No.	Name of the Department
1	English	10	Biotechnology
2	Telugu	11	Zoology
3	Hindi	12	Micro Biology
4	Sanskrit	13	History
5	Mathematics	14	Political Science
6	Physics	15	Economics
7	Statistics	16	Public Administration
8	Chemistry	17	Commerce
9	Botany	18	Computers

TEACHING STAFF DETAILS

S. No.	Type of Faculty	No. of Faculty
1	Regular Faculty	39
2	Contract Faculty	5
3	Guest Faculty	3
Total No. of Faculty		47

TEACHING STAFF

S. No.	Department	Name of the Faculty	Designation	Total experience (in years)
1	English	Dr.ShabeehFathima	Asst. Professor	24
2	English	S.Kavitha	Asst. Professor	23
3	English	Dr. T. Kalpana	Asst. Professor	10
4	English	G. Hephzibah	Asst. Professor	30
5	Telugu	Dr. M. Shamala	Asst. Professor	9.9
6	Telugu	Dr.KapilaBharathi	Asst. Professor	8
7	Telugu	S. Rajeetha	Asst. Professor	11
8	Hindi	Dr.D.Ananthalakshmi	Asst. Professor	23
9	Sanskrit	K.Rajeshwari	Lecturer	16
10	Mathematics	Dr.BonalaMadhavi	Asst. Professor	22
11	Mathematics	I Mangamma	Asst. Professor	13
12	Physics	GoparajuSavitri	Asst. Professor	9.5
13	Physics	Dr.Ch.Snehalatha Reddy	Asst. Professor	19
14	Physics	Smt. A. Rajasree	Asst. Professor	15
15	Chemistry	Dr.Mallaram Aruna	Asst. Professor	11

S. No.	Department	Name of the Faculty	Designation	Total experience (in years)
16	Chemistry	N.kavitha	Asst. Professor	8
17	Chemistry	Dr.MunagalaAlivelu	Asst. Professor	8
18	Chemistry	P. Rajasri	Lecturer	18
19	Chemistry	Dr. Srinivas Nerella	Asst. Professor	21
20	Chemistry	H.Pallavi	Asst. Professor	8
21	Botany	Dr.D.Parvathi	Lecturer	10
22	Botany	K.Saritha	Asst. Professor	8.3
23	Zoology	Dr. G. Suhasini	Asst. Professor	23
24	Zoology	B. Kalpana	Asst. Professor	8
25	Microbiology	Dr. G. Renuka	Asst. Professor	10
26	History	B. Sumalatha	Asst. Professor	20
27	History	E.Anitha	Asst. Professor	9
28	Economics	B. Kasthuri Bai	Asst. Professor	9.7
29	Economics	V.Rama.	Asst. Professor	20
30	Economics	D Radhika	Asst. Professor	9
31	Political science	G. Vijaya	Asst. Professor	19
32	Political science	M. Shailaja	Asst. Professor	13
33	Public Administration	Dr D.Ramakrishna Reddy	Asst. Professor	16
34	Commerce	Dr.Ramavath Ravi	Asst. Professor	13
35	Commerce	Dr.G.Rajitha	Asst. Professor	10
36	Commerce	Dr. Ch. Bhaskar	Asst. Professor	16
37	Commerce	B.Shirisha	Asst. Professor	24
38	Physical Education	J Ashok Reddy	Lecturer	21
39	Library Science	B. Jagadish	Asst. Professor	14
40	Computers	T. Aruna	Lecturer	21
41	Computers	P.Prathibha	Lecturer	17
42	Computers	B. Swarnalatha	Lecturer	15
43	Commerce	M. Shireesha	Lecturer	11
44	TSKC	Md. Rafi	Mentor	14
45	Biotechnology	Dr. B. Mahitha	Lecturer	5
46	Statistics	Ch. Srinath	Lecturer	7
47	Computers	G. Pallavi	Lecturer	8

NON-TEACHING STAFF

S. No.	Name of the Non-teaching Staff	Designation
1	N. Swarupa Rani	Superintendent
2	Haseena Begum	Senior Assistant
3	G. Shakunthala	Junior Assistant
4	Mirza MuawarBaig	Junior Assistant
5	DaravathDamodar	Record Assistant
6	B. Shakunthala	Record Assistant
7	BhukyaVijaya	Museum Keeper
8	KemidiYadamma	Office Subordinate
9	KodingulaSarojana	Office Subordinate
10	J. Komuraiah	Office Subordinate
11	B. Vijaya	Office Subordinate
12	Syed Yousuf	Water Boy
13	P. Kishor	Store Keeper (Out Sourcing)
14	G. Revanth	Herbarium Keeper (Out Sourcing)

Just as a candle cannot burn
Without fire, men cannot live
Without a spiritual life.

.....Buddha



STATE BEST TEACHER AWARDEE - Dr. RAMAVATH RAVI, ASST. PROF. OF COMMERCE



BEST TEACHER IN BOTANY- DR. D. PARVATHI, ASST. PROF. IN BOTANY BY CCE. HYDERABAD



BEST TEACHER IN ZOOLOGY- Dr. G. SUHASINI, ASST. PROF. IN ZOOLOGY BY CCE. HYDERABAD



DR.G.SUHASINI RECEIVING NESA ENVIRONMENTALIST AWARD-2019 BY NATIONAL ENVIRONMENTAL SCIENCE ACADEMY- NEW DELHI



ONE DAY NATIONAL SEMINAR ON “EMERGING TRENDS & CHALLENGES IN COMMERCE AND MANAGEMENT EDUCATION” ON 22ND NOVEMBER 2019 ORGANIZED BY DEPARTMENT OF COMMERCE



SEMENAR BOOK RELEASE BY PRINCIPAL DR. G. RAJAREDDY AND COMMERCE DEPARTMENT

MOUs

S. No.	Department	MOUs
1	Telugu	2
2	Hindi	1
3	English	2
4	Mathematics	1
5	Physics	2
6	Chemistry	3
7	Botany	3
8	Zoology	3
9	Microbiology	4
10	Biotechnology	2
11	History	1
12	Economics	1
13	Political Science	1
14	Public Administration	1
15	Commerce	2
16	TSKC	4
	TOTAL	33

INFRASTRUCTURE FACILITIES

S. No.	Nature of Rooms / Labs	Total
1	Class Rooms	27
2	Computer Labs	4
3	Laboratories	18
4	Canteen	1
5	Gymnasium(Outdoor & Indoor)	2
6	Principals Chamber with Ante Room	1
7	Audio Visual Room (MANA TV)	1
8	Health Centre	1
9	TSKC (Telangana Skills & Knowledge Centre)/ English Language Lab	1
10	Examination Branch	1
11	Staff Rooms	10
12	NCC Room	1
13	IQAC Room	1
14	Library	1
15	Reading Room	1
16	UGC Room	1
17	NSS Room	1
18	Research Centre	2
19	Hostel	20
20	Girls Toilets with Nappy Vending Machine with Incinerator	02+02
21	Auditorium	1

RESEARCH FACILITIES

- PCR Equipment
- Fluorescent Microscope
- Laminar Flow
- UV Spectrometer
- Fumehoods
- Gaussian Software

FACILITIES ON THE CAMPUS

- Play Ground (Khabaddi Court, Shuttle Court)
- Indoor and Outdoor Gym
- Canteen
- Womens Hostel
- First Aid Centre
- Cooperative Stores
- Women Toilets with Napy vending machine with incenator

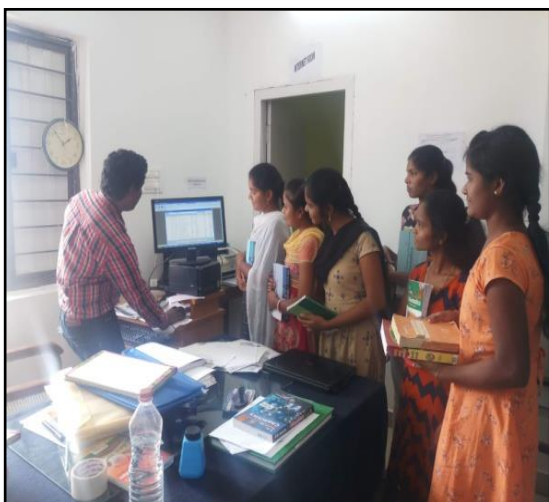
LIBRARY & LEARNING RESOURCES

Total No. of Books	12761
Journals (National/International)	30
Reference Books	5222
Open Access Resources	9500
e-Journals	12
Computers with Internet Facility	10

There are only two mistakes one can
make along the road to truth; not going
all the way, and not starting.

.....Buddha

DEPARTMENT OF LIBRARY SCIENCE



SOUL Web-OPAC



Reading Room



N-List orientation



Book Exhibition

TELANGANA SKILLS & KNOWLEDGE CENTRE (TSKC)

- To impart increasing variety of skills and latest knowledge in the job market to the students.
- The Institution has career guidance through TSKC since 2016 onwards for providing information regarding employment opportunities.
- To train the students in promoting employable skills conduct Job Melas and encourage the students to attend off campus Job Melas.
- The TSKC of the college trains the students in communication skills and analytical abilities and invites the companies for the placements.
- The State Government is in MOU with TASK(Telangana Academy for Skill and Knowledge) under which every Government Degree College is in collaboration.
- No. of Training Programmes : 15
- No. of Students trained : 120
- Our student secured a job in Infosys

TASK TRAINING PROGRAMMES

- 21st century transferable skills
- Introduction to Python
- TALLY for BCOM students
- HTML
- Arithmetic and Reasoning
- Communication Skills
- College to Corporate (C2C)
- Interview Skills
- C and Data Structures



Infosys Campus Visit



HTML Training



Mahindra Pride Activity



Mahindra Pride Activity



21st Century Skills Activity



21st Century Skills Activity



Training



TSKC Activity

BOOKS PUBLICATIONS

S. No	Department	Title of the book	Name of the Author	ISBN/ISSN
1	ZOOLOGY	APPLIED ZOOLOGY -	Dr G. Suhasini	978-81-8152-403-4
2		Text Book of MICROBIOLOGY AND IMMUNOLOGY	Dr G. Suhasini	978-81-8152-412-6
3	CHEMISTRY	A TEXTBOOK OF CHEMISTRY	Dr M.Aruna	13-6700-741-3
4		(WITH PRACTICALS)VOL.5	Dr M.Aruna	
5		KALYANI UNIFIED CHEMISTRY	Dr M.Aruna	978-93-272-8862-6
6		KALYANI UNIFIED CHEMISTRY	Dr M.Aruna	978-93-272-7389-2
7		INORGANIC,ORGANIC&	Dr M.Aruna	BS614CHE-E
8		PHYSICAL CHEMISTRY-6	Dr M.Aruna	BS614CHE-E
9		B.SC CHEMISTRY-6	Dr M.Aruna	UG405SEE(CHE2)-T
10	MICROBIOLOGY	B.SC. MICROBIOLOGY 1st & 2nd	Dr G.Renuka	
11		B.SCMICROBIOLOGY 3rd & 4th	Dr G.Renuka	
12		BSC MICROBIOLOGY 5th	Dr G.Renuka	
13		FOOD SCIENCE AND NUTRITION	Dr G.Renuka	978-93-86194-85-5
14		FOOD HYGIENE AND SANITATION	Dr G.Renuka	978-93-86194-84-8

S. No	Department	Title of the book	Name of the Author	ISBN/ISSN
15	POLITICAL SCIENCE	IKA VIJAYAM MEE GUPPITLO	M.Shailaja	
16	PUBLIC ADMINISTRATION	INTERMEDIATE SECOND YEAR TEXTBOOK	Dr D.Ramakrishna Reddy	818180682-4
17		INTERMEDIATE FIRST YEAR TEXTBOOK	Dr D.Ramakrishna Reddy	818180600-X
18		TEXTBOOK FOR INTERMEDIATE FIRST YEAR	Dr D.Ramakrishna Reddy	818180588-7
19		B.A.2nd YEAR SEM4	Dr D.Ramakrishna Reddy	BA425PA-T
20		B.A.2nd YEAR SEM3	Dr D.Ramakrishna Reddy	BA325PA-E
21		B.A.2nd YEAR SEM3	Dr D.Ramakrishna Reddy	BA325PA-T
22		BA SECOND YEAR SEM4	Dr D.Ramakrishna Reddy	BA425PA-E
23	COMMERCE	RISK MANAGEMENT IN HOUSING FINANCE SECTOR	Dr G.Raja Reddy	978-93-88522-81-6
24		WEEKLY MARKETS and the tribals in telengana	Dr R.Ravi	978-93-88522-78-6
25		Emerging Trends and Challenges in Commerce & Management Education	Dr R.Ravi	978-93-90143-19-1

No. of Research Publications(Abstract)				
S. No.	Department	Name of the faculty	No. of Publications	
			National	International
1	English	Dr.Shabeeh Fathima	0	2
2		S. Kavitha	5	4
3		Dr.T.Kalpna	0	6
4		G. Hephzibah	0	1
5	Telugu	Dr.M. Shamala	10	0
6		Dr.KapilaBharathi	1	3
7		S. Rajeetha	4	1
8	Hindi	Dr.D. Ananthalexmi	1	4
9	Sanskrit	K. Rajeshwari	1	0
10	Mathematics	Dr.B. Madhavi	2	0
11		I. Mangamma	0	1
12	Physics	G. Savitri	1	1
13		Dr. Ch. Snehalatha Reddy	0	1
14		A. Rajasri	1	0
15	Chemistry	Dr. M. Aruna	0	6
16		N. Kavitha	0	3
17		Dr. M. Alivelu	0	3
18		Dr. N. Srinivas	4	0
19		H. Pallavi	2	0
20	Botany	Dr. D. Parvathi	7	3
21		K. Saritha	1	0

No. of Research Publications(Abstract)				
S. No.	Department	Name of the faculty	No. of Publications	
			National	International
22	Zoology	Dr. G. Suhasini	2	16
23		B. Kalpana	1	2
24	Microbiology	Dr. G. Renuka	2	7
25	History	B. Sumalatha	0	3
26		E. Anitha	0	1
27	Economics	V. Rama	0	2
28		D. Radhika	0	1
29	Political Science	G. Vijaya	1	1
30		M. Shailaja	1	1
31	Public Administration	Dr. D Ramakrishna Reddy	0	5
32	Commerce	Dr. Ramavath Ravi	2	15
33		Dr. G. Rajitha	5	3
34		Dr. Ch. Bhaskar	7	0
35		B. Shirisha	2	2
36	Physical Education	J. Ashok Reddy	0	1
37	Library Science	B. Jagadish	0	3
38	Computers	T. Aruna	0	2
39		P. Prathibha	1	2
40		B. Swarnalatha	0	2
41	Biotechnology	Dr. B. Mahitha	0	20
Total			64	128
Grand Total			192	

Achievements of Students:

1.	Achievements of students in examination – University Ranks, etc.	1. S. Chandrika B.Sc. M.P.Cs- 4 th Rank 2. J. Sindhuja, B.Sc. B.Z.C- 1 st Rank 3. L. Vijayalaxmi, B.Sc. M.Z.C - 2 nd Rank 4. E. Bharathi, B.Sc. M.P.Cs - 3 rd Rank
2.	Achievements in co-curricular activities	2019-20 <ul style="list-style-type: none"> Arthika secured State 4th Rank in PG Entrance Examinations. (Annexure 25 – enclosed)
3.	Achievements in Extra-curricular activities	2019-20 <ul style="list-style-type: none"> K.Santhoshini awarded State 3rd Prize in State Level Competitions. Ch. Praneetha secured State 1st Prize in NYK Youth Parliament Competitions and participated in National Level Youth Parliament Competitions Singing, Folk Dance, Classical Dance Cluster Level 1st Prize Winners in Yuvatharangam 2019 D. Vennela BSc mstcs I year adm no: 005204303 – Selected for K.U team in Chess and participated in a south-zone inter-University tournament conducted at Nagarjuna University in Guntur Monica, BSc MPC and Team participated in NYK Adventure Camp at Adilabad. Srividya, BSc BZC III year participated in NCC Republic Day Parade, New Delhi.



- **Ch. Praneetha** secured State 1st Prize in NYK Youth Parliament Competitions and participated in National Level Youth Parliament Competitions.



- **Monica**, BSc MPC and Team participated in NYK Adventure Camp at Adilabad.



Do not dwell in the past do not
dream of the future, concentrate
the mind on the present moment.
.....Buddha



**Jignasa project –
Dept. Of Public Administration**



**Jignasa project –
Dept. Of Public Administration**



Jignasa project – Dept. Of Botany



Jignasa project – Dept. of Economics





NSS Unit-1



NSS Unit-1



NSS Unit-1



NSS Unit-2



NSS Unit-2



NSS Unit-2

EAK BHARAT SHRESTHA BHARAT

Eak Bharat Shrestha Bharat programme aims to enhance interaction and promote mutual understanding between people of different states through the concept of state pairing. The main aim of this program is to promote a sustained and structured cultural connect in the areas of language learning, traditions, tourism, cuisine, and sharing of best practices.

Eak Bharat Shrestha Bharat was announced by honorable prime minister on 31st October 2015 on the occasion of 'Rastriya Ektha divas' which is 140th birth anniversary of Sardar Vallabhai Patel.

On this occasion Telangana was paired with Haryana thereby, Pingle College for women was paired with SMS khalsa Labana Girls College, Haryana.

The main objectives of Eak Bharat Shrestha Bharat are:

- To celebrate the unity in diversity of our nation and to maintain and strengthen the bonds between the people of the country.
- To promote the spirit of national integration.
- To show case the rich heritage and culture, customs and traditions of either states for enabling people to understand and appreciate the diversity of India.
- To establish long-term engagements between the paired states.
- To create an environment which promotes learning between states by sharing best practices and experiences

Under this programme our institute conducted as series of programmes every month such as Food Festivals, Cultural Exchange Programs, Youth Festivals, EBSB Days, Academic Events, Quiz Competitions, Tourism Exchange Programmes, Awareness On Corona Programmes, Movie Screening, Essay Writing, Social Activities, And Many More.

Eak Bharat Shrestha Bharat Activities



Students enacting Haryana Lahari festival



Eak Bharat Shrestha Bharat – Haryana Folk Festival





Competitive cell



Competitive cell

Supply of Dengue homeo pills



Eye Camp



Haritha Haram



Awareness programme by EDC cell



Community service



Community service

S. No.	Name of the Faculty	Title of the Project
1	Dr. G. Raja Reddy	Risk Management in Housing Finance Companies - A Comparative Study of HDFC & LICHFL
2	Dr. G. Rajitha	Performance of Women Entrepreneurs in Warangal District.
3	Dr. M. Aruna	Synthesis of Piperidine bearing Alkaloid(+) - Caulophyllumine B and their Analogues via NI(II) N - Heterocyclic Catalized Heck and Negishi Coupling.
4	Dr. N. Srinivas	Synthesis and Biological Evaluation of D-ring modified OxadiazolethionePodophyllotoxin Derivatives as Tubulin Agents

NSS CAMP



Clean & Green



Health camp



Health camp

Thousands of candles can be lighted
from a single candle, and the life of the
candle will not be shortened. Happiness
never decreases by being shared.

.....Buddha

ARTICLES BY STAFF

1. GOODS AND SERVICE TAX (GST) IN INDIA: AN ANALYSIS

Dr. RAMAVATH RAVI*

Introduction

Tax revenue is the vital source of public income. A tax is a compulsory contribution for which the tax payer cannot expect any direct benefit from the government. Tax- A free charged (levied) by a Government on... income...products/service... activity. Tax structure in India is a three tier federal structure. The central government, state governments, and local municipal bodies make up this structure. Article 256 of the constitution states that “No tax shall be levied or collected except by the authority of law”. Hence, each and every tax that is collected needs to back by an accompanying law. The tax system in India allows for two types of taxes—Direct and Indirect Tax.

Direct Taxes: - If the liability (responsibility to pay to the government) and incidence of tax (ultimate bearing) are on the same person- Income Tax, Wealth Tax, and Gift Tax

Indirect Taxes: - If the liability is on one person whereas the incidence of tax is on some other person- Excise duty, customs duty, service tax and sales tax. The burden of tax is shifted on customer along with the price of goods or value of service

Need for GST in India

There was no unified and centralised tax on both goods and services. Hence, GST was introduced. Under GST, all the major indirect taxes were subsumed into one. It has greatly reduced the compliance burden on taxpayers and eased tax administration for the government.

Meaning of GST

Goods and services Tax (GST) is an indirect tax levied on the supply of goods and services. This law has replaced many indirect tax laws that previously existed in India. GST is a value added tax levied on most goods and services sold for domestic consumption. The GST is paid by consumers, but it is remitted to the government by the businesses selling the goods and services. In effect, GST provides revenue for the government. GST is the biggest indirect tax reform of India; GST is a single tax on the supply of goods and services. It is a destination based tax. GST will subsume Central Excise Law, Service Tax Law, VAT, Entry Tax, Ostroi, etc.

Definition of GST

According to Goods and Services Tax (GST) Act, 2017, GST means tax on supply of goods or services or both, except taxes on supply of alcoholic liquor for human consumption, tobacco products and petroleum products.

Constitutional Amendments of GST

Constitution Bill, 2014 received the assent of the President of India on 8th September, 2016 and became Constitution Act, 2016, which paved the way for introduction of GST in India. As per Article 246A, the power to levy GST has been given to the Parliament as well as to Legislature of every State. The constitution (one hundred and twenty second amendment) Bill, 2016, for introduction of GST in the Country was passed by Rajya Sabha on 3rd August, 2016 and by Lok Sabha on 8th August, 2016. Consequent upon this, the President of India accorded assent on 8th September, 2016, and the same was notified as the Constitution (One hundred and first amendment) Act 2016. The Central Government notified 1st July, 2017 as the date from which the much awaited indirect tax reform in India, i.e., Goods and Service Tax (GST) will be implemented. Accordingly, GST has been implemented in India w.e.f. 1st July, 2017. Key legislations:

Objectives of GST

- To ensure one Country-One Tax
- To ensure consumption based tax
- To ensure uniform GST Registration, payment and input tax credit.
- To eliminate the cascading effect of indirect taxes on single transaction.
- To ensure the subsumation of all indirect taxes
- To reduce tax evasion and corruption
- To increase productivity
- To increase Tax to GDP ratio and revenue surplus
- To increase compliance
- To reduce economic distortions.

Scope of GST

All goods and services are covered under GST regime except Alcoholic liquor for human consumption, tobacco products subject to levy of GST and Centre may also levy excise duty GST council yet to decide the incidence and levy of GST on following:

- Crude petroleum
- High speed diesel
- Motor spirit petrol
- Natural gas
- Aviation turbine fuel

Need of GST in India

There is a saying in Kautilya's Arthshastra, the first book on economics in the world, that the best taxation regime is the one which is "liberal in assessment and ruthless in collection" The proposed GST seems to be based on this very principle. Firstly, while the present system allows for multiplicity of taxes being collected through an inefficient and non transparent system, the introduction of GST is likely to rationalize it and thereby plug the loop holes in this system.

Types of GST

Since GST subsumed indirect taxes of central government (excise duty, service tax, custom duty etc) and state governments (VAT, luxury tax, etc.), both the governments now depend on GST for their indirect tax revenue. Indian Government adopted GST is a dual concept tax system, under this system tax is administered, collected and shared by both centre and states based on the nature of transaction (within state or interstate).

Central Goods and Service Tax: - CGST refers to the Central GST tax that is levied by the Central Government of India on any transaction of goods and services tax taking place within a state.

State Goods and Service Tax:- SGST refer to the State GST is one of the two taxes levied on every intrastate (within one state) transaction of goods and services. SGST is levied by the state where the goods are being sold/purchased. It will replace all the existing state taxes including VAT, State Sales Tax, Entertainment Tax, Luxury Tax, Entry Tax, State Cesses and Surcharges on any kind of transaction involving goods and services. The State Government is the sole claimer of the revenue earned under SGST.

Integrated Goods and Service Tax: - IGST refer to the Integrated GST is applicable on interstate (between two states) transactions of goods and services, as well as on imports. This tax will be collected by the Central Government and will further be distributed among the respective states. IGST is charged when a product or service is moving from one state to another.

Union Territory Goods and Services Tax:- UTGST refer to the Union Territory GST, is the GST applicable on the goods and services supply that takes place in any of the five Union Territories of India, including Andaman and Nicobar Island, Dadra and Nagar Haveli, Chandigarh, Lakshadweep and Daman and Diu. The reason why a separate GST was implemented for the Union Territories is that the common State GST cannot be applied in a Union Territory without legislature. Delhi and Pondicherry UTs already have their own legislatures, so SGST is applicable to them.

2. CONTEMPLATING THE FOOD SECURITY SYSTEM IN INDIA 'A SAFE, AFFORDABLE, AND PLENTIFUL SUPPLY OF FOOD IS NATIONAL SECURITY ISSUE' -Doug Ose

Dr. RAMAKRISHNA REDDY,
Asst. Professor in Public Administration

Food is essential for living. Food security means availability of food to all people at all times. But actually, food security means something more than getting two square meals. To all intents and purposes food security is availability of food which is produced within the country, accessibility which means food is within the reach of every person, affordability which implies that individual has enough money to buy sufficient, safe and nutritious food to meet one's dietary needs. Therefore, food security is ensured in a country only if there is enough food available for the population, all of them have the capacity to buy the acceptable quality and quantity and there is no barrier to access food.

Food security is understood as availability at all times of adequate supply of basic food stuffs. Amartya sen introduced a word named entitlements to the concept of food security. The poorest section of the society might be food insecure for the most of time; however, the lower middle classes are also affected when there is a national disaster or a pandemic like Covid 19.

The Covid 19 pandemic is threatening the long-cherished food security of India. It has impacted all the four aspects namely availability, accessibility, affordability and stability of utilization of food. Due to a pandemic say covid-19 total production of grains decreased leading to shortage of food, which lead the way for high prices. If this is going to continue for a longer time period it may cause a situation of starvation.

Hundreds of millions already living in abject poverty now face severe hardships; they are suffering from food and nutrition insecurity. The worst affected groups can be mentioned as migrant laborers, unemployed youth, land less laborers, small scale workers and many others.

Hunger is another aspect indicating food insecurity. Hunger is not just an expression of poverty. The recent report of global hunger says that India ranks 94 among 107 in global hunger index 2020. The report states that the 14% of India's population is undernourished the report also shows that the country recorded of 37.4 percent of stunting and 17.3 percent of wasting among children under five. While the less than five mortality rates is 3.7% therefore hunger and under nutrition cannot and should not be fixed by mere calorie provisions it should be steered by providing balanced healthy diets which are climate friendly, affordable and accessible to all.

A high incidence of malnutrition prevails among women in India which is showing its bad trend in the pandemic like Covid 19. This is a matter of serious concern since it puts the unborn baby at a risk of bad health, undernourished and Malnutrition. Large proportions of pregnant, nursing mother and a greater share of children under the age of 5 years constitute an important segment of food insecure population.

The Covid 19 pandemic has severely derailed the development of India and globally. The world food program predicts that the number of people facing acute food

insecurity around the world almost doubled to 270 million who are insecure due to Covid 19.

Covid-19 has struck at a stage whether hunger and undernourishment is rising tremendously. As a result of extreme hunger people are unable to consume enough healthy calories to lead a normal active life. The pandemic's economic impact pushed millions of people in extreme poverty with soaring unemployment rates, income losses, rising food costs, which threatens food access which shows adverse effects on food security. The pandemic increased the social divides the rich are enjoying the luxury due to their wealth accumulation, on one hand and on the other millions of people are thrown out of work and don't have enough money to feed their families.

Food security depends on the public distribution systems, the public distribution system is the Indian food security system established under the ministry of consumer affairs PDS is operated under the joint responsibility of central and state governments. The operational responsibilities such as identification of beneficiaries, issuing of ration cards and supervisions of fair price shop etc, under this fair price shops presently the commodities such as wheat, rice, sugar and kerosene are being allocated to states for distribution. Some states also distribute additional goods through the PDS outlets such as pulses, edible oils, iodized salts, spices etc.

There are few issues associated with public distribution systems in India such as:

- Identification of beneficiaries.
- Leakage of food grains.
- Issues with procurement.
- Environment issues.
- The linking of Aadhar to ration card. Which left many beneficiaries with hunger?
- To overcome these issues the central government has initiated many reforms one such reform is 'ONE NATION ONE RATION CARD'.

MAJOR REASONS FOR FOOD INSECURITY IN INDIA:

IN RURAL AND TRIBAL AREAS:

- Low Productivity is mainly due to a lack of improvement in agricultural productivity owing to inadequate resources and markets needed to obtain agricultural stability.
- Lack of education and job opportunities in rural areas have further added to the problems.
- Climate change has an impact on agricultural productivity, which affects the availability of food items and thus, food security.
- Backwardness, for the tribal communities, habitation in remote difficult terrains and practice of subsistence farming has led to significant economic backwardness.

IN URBAN POPULATION:

- Rural-to-urban migration has shown a gradual increase, with its share in total migration rising from 16.5% to 21.1% from 1971 to 2001. The emergence of these rural origin pockets in the urban areas has resulted in a number of slum

settlements characterized by inadequate water and sanitation facilities, insufficient housing and increased food insecurity.

- Affordability is another important point which might promote food insecurity is the dependence of this laborers class on daily employment wages which tends to be variable on different days of the month and thus the food procurement and access are also fluctuating.
- Access is one other reason since all the privilege of the government schemes and programs, aimed at helping the urban slum people, are enjoyed only by those slums that are notified.

IN CHILDREN AND MOTHERS:

- The children are food insecure because of factors attributed to overpopulation, poverty, lack of education and gender inequality.
- Lack of proper knowledge among mothers regarding nutrition, breast-feeding and parenting is another area of concern.
- Gender inequality is a major concern since it places the female child at a disadvantage compared to males and causes them to suffer more because they are last to eat and considered less important.

WAYFORWARD TO RETRUCTURE FOOD SAFETY:

- Tackling these problems will require new ideals and robust will; we need to find new resilience across our food systems, by bringing our Indian governments comprehensive recovery programs like PM KISAN SCHEME, providing more liberal finance under MGNREGA, providing grants and subsidized food grains under PRADHAN MANTRI GARIB KALYAN YOJANA, ANTYODAYA ANNA YOJANA, MID DAY MEAL SCHEME, THE INTERGATED CHILD DEVELOPNMENT SERVICES {ICDS}, ANNAPURNA SCHEME.
- Some of the global initiatives for food security are SAVE FOOD, SDG GOALS, THE HIGH-LEVEL TASK FORCE, and THE WORLD BANK PARTNERWSHIPS ON FOOD SECURITY.
- Some of the working NGOs for wood security are WORLD FOOD PROGRAM, AKSHAYA PATRA, UNICEF, THE HUNGER PROJECT ACTION, ACTION AGAINST HUNGER.

All of these initiatives would ensure food security in India and the world.

**YOU CAN'T BUILD A PEACEFUL WORLD ON EMPTY STOMACHS
AND HUMAN MISERY -Dr. Norman Ernest**

3. THE ROLE OF MICROORGANISMS IN ACHIEVING THE SUSTAINABLE DEVELOPMENT GOALS

Dr. G. RENUKA,
Head. Department of Microbiology



The United Nations adopted the 2030 Sustainable Development Goals in January 2016, with the purpose of attaining environmental, social, and economic growth using green approaches and cleaner manufacturing technology. The fulfilment of basic human wants and desires is one of these goals' most important priorities, because critical human necessities like food, clothing, shelter, and health care are still out of reach for the majority of people, despite the world's economy's rapid growth. Increased waste products and dwindling natural resources have shifted people's focus to more efficient green and clean industrial systems.

The Sustainable Development Goals (SDG) aim at providing these fundamental necessities to everyone through the intelligent use of sustainable science.



Fig 1. The SDGs which can be achieved through Microorganisms

Microorganisms, which are critical to the survival of life on Earth, can play a significant role in this regard. Although most people focus on microorganism's disease-causing powers, there are various good activities that microbes do in the environment, necessitating a need to better understand the microbial world in order to contribute significantly to long-term growth. In this review, the integration of microbial technology for the achievement of SDGs is being put forth.

If society is sufficiently informed about the ways that bacteria can affect our lives, and if microbes are handled wisely, some of the world's major concerns, such as

food, health, well-being, and green energy, can be appropriately addressed.

There are numerous ways in which the microbes can be moulded to our advantage and can be used as a weapon against the worldly issues being faced by mankind. Few of the applications of microorganisms in aiding the Sustainable Development Goals are:

Sustainable Agriculture:

Soils are home to a wide range of organisms, including bacteria, archaea, and fungi, as well as insects, annelids, algae, and plants. Due to their ability to promote plant growth and enhance biotic and abiotic stress resistance, remediate contaminated soils, recycle nutrients, manage soil fertility, weather and mineralize rocks, and other abilities that result in the reduced use of fertilisers and pesticides in agriculture, microorganisms have the potential to play a role in sustainable agricultural production. Recently developed biotechnological advancements aid in the modification of microbes that can be utilised to improve bioremediation and phytoremediation of contaminated soil for agricultural use. Sustainable agriculture is critical now in order to meet our long-term agricultural demands while preserving the environment.

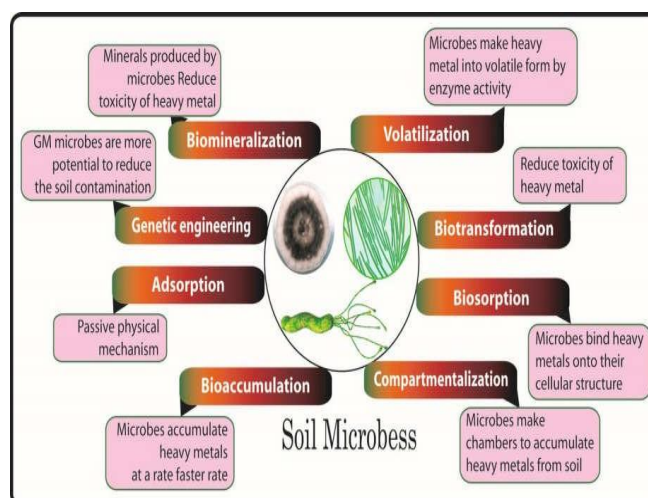


Fig 2. The Applications of Soil microbes in Sustainable Agriculture

Climate Action

Climate change is affecting every country on every continent, with shifting weather patterns, rising sea levels, extreme weather, and increased greenhouse gas emissions (UN, 2019). National economies are being disrupted by climate change, which is harming lives, people, and communities now and in the future. According to the recent report of the Intergovernmental Panel on Climate Change (IPCC), limiting warming to 1.5 degrees Celsius rather than 2 degrees Celsius or higher is beneficial and possible within scientific laws of chemistry and physics, but it will necessitate unprecedented transitions in all aspects of society. Regardless of the 'unseen majority,' microbes play a role in climate change - bacteria in climate-change reaction.

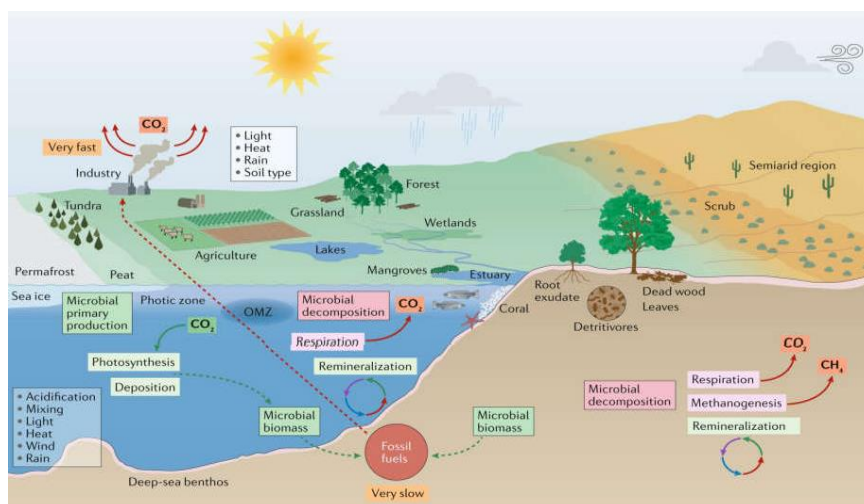


Fig 3. The demonstration of Microbial impact on Climate

Adaptivity and resilience of humans and other life forms on earth to anthropogenic climate change will be achieved by incorporating microbial knowledge since micro-organisms support the existence of all higher life forms. Microbiology is essential for achieving an environmentally sustainable future. It is crucial for the microbiologists to raise microbial-climate-change awareness and engage with microbial research that can be increasingly integrated into the frameworks for addressing climate change and accomplishing the UN SDGs.

These are only few among a plethora of other applications of microorganisms in achieving the SDGs. The other uses can be:

1. Zero Hunger
2. Good Health and wellbeing
3. Clean water and Sanitation
4. Affordable green energy
5. Sustainable cities and Communities
6. Life below water and on land

CONCLUSION

The SDGs are a gaggle of 17 overall goals with 169 targets aimed toward improving life on Earth, specifically to end poverty, protect the earth, and ensure prosperity for all and to unravel the most serious global economic, societal and environmental issues. The SDGs are highly ambitious, admirable, and quite just a touch hopeful, but are they in any way achievable by their 2030 deadline?

The microbiological community is well-placed to require a lead in tackling many of the SDG targets: beating communicable disease, provision of unpolluted water, food security, maintenance of biodiversity within the oceans and ashore, and uptake of green energy like biofuels. With some heuristic, microbiology has relevance to all or any of the SDGs. The multidisciplinary nature of microbiological research will help in facilitating an integrated approach to answering questions and solving problems raised by the SDGs.

4. WELLNESS

Dr. G. SUHASINI

Head, Department of Zoology



Wellness management is gaining enormous importance steadily due to the chaining trend in the attitude of the people towards health. Health and fitness are now highly talked about issues. People started realizing the importance of preventive measures for diseases. A palpable change has occurred in the people with respect to not only having good health but also being able to enjoy life with energy and fitness.

Wellness is not merely physical or mental health, exercise, or nutrition. It is much more than that, and involves full integration of our physical, mental, and spiritual well-being states, and includes social, emotional, spiritual, environmental, occupational, intellectual, and physical wellness. Each of these dimensions acts, interacts, and significantly contributes to our quality of life.

Social wellness is the ability to relate, connect and interact with, and contribute to Social wellness is the ability to relate, connect and interact with, and contribute to the common welfare of other people in our world, rather than to think only of ourselves. This means our ability to establish & maintain meaningful relationships with family, friends, and peers, use good communications skills, respect ourselves and others, and Social wellness believes in living in harmony with others of diverse cultures, backgrounds, beliefs, and our environment than to live in conflict with them.

Emotional wellness is the ability to understand ourselves and cope with the challenges that life can, and will always bring. Our ability to acknowledge and share feelings of anger, fear, anxiety, sadness, or stress; as also hope, love, faith, joy, and happiness, etc. in a productive manner contributes to our emotional wellness. Being emotionally well involves the ability to have an optimistic approach, enjoy life despite its occasional disappointments & frustrations, besides accept our mistakes for necessary corrective action, and learn from them.

Spiritual wellness is the ability to establish peace and harmony in our lives. The ability to develop and practice consistency between our values and actions, realize a common purpose that binds creation together, and strive for a state of harmony with oneself and others contributes to our spiritual.

The message that the total health assessment articulates about the current state of health is that although lifestyle choices are fairly ideal, there is always room for

improvement. All of these categories are applicable to the physical health aspect of wellness because they all have a great impact on the way your body physically feels.

Increasing the concern about health among individuals is bringing a lot of positive changes in the attitude towards achieving better health. For obvious reasons, there is consideration of wellness management as one powerful and effective tool for this. The complexity of wellness management lies not in its meaning but in its effective achievement. We can attribute the complexity of wellness management to the intricacies of its multi-dimensional combinations, which require not only the will to do but also reasonable knowledge to implement them appropriately.

Everybody wants health and vitality to live a happy life, but how to achieve this is a challenge. It is also true that the health of the population across the globe is decreasing and, especially, the proportion of non-communicable diseases like diabetes, cardiovascular diseases, cancers, fall injuries, and psychological disorders are increasing in unfathomable proportions. Fortunately, most of these non-consumable diseases are preventable, with a lifestyle approach called wellness management.

However, due to the scientific awareness and scientific revolution happening in the field of biological and medical sciences, wellness management is taking a constructive shape with well-defined domains. Attainment of wellness is a process of conscious effort with perfect and appropriate physical and mental practices. It is a scientific fact that there is a positive correlation between wellness and health hence, higher wellness levels of an individual would bestow better health on the individual.

A healthy person would be able to resist both communicable and non-communicable diseases effectively due to increased immunity and higher functional ability of a different system of the body. Wellness also makes an individual equipped with energy that is more vital to be very resourceful to oneself and to society. Wellness management will emerge as a human wellness science very soon and will become a necessary and basic lifestyle approach for all individuals.

5. WHY LEARNING CHEMISTRY IS IMPORTANT??

**Mrs. PALLAVI,
Asst. Professor of Chemistry**

Chemistry is essential for meeting our basic needs of food, clothing, shelter, health, energy and clean air, water and soil. Knowing something about chemistry is worthwhile because it provides an excellent basis for understanding the physical Universe we live in.” For Better or worse, Everything is chemical.”

Chemical Technologies enrich our quality of life in numerous ways by providing new solutions to problems in health, materials and energy usage. Thus studying chemistry is useful in preparing us for the real world. Chemistry is often referred to as central science because it joins together physics, mathematics, biology, medicine, earth sciences and environmental Sciences. Knowledge of nature of chemicals and chemical processes therefore provides insight into a variety of physical and biological phenomena.

Role of chemists:

The behavior of atoms, molecules and ions determines the sort of world we live in., our shapes and sizes, even how we feel on a given day. Chemists who understand these phenomena are very well equipped to tackle problems faced by modern society. On any given day, a chemist may be studying the amount of insecticide in drinking water, comparing the protein content of meat, developing a new drug or analyzing a moon rock etc.

To design a synthetic fiber, a life saving drug, or a space capsule requires a knowledge of chemistry. To understand why an autumn leaf turns red or why soap gets us clean requires a basic understanding of chemistry. It is obvious that chemistry background is important to teach or to work in chemical industry developing chemical commodities like polymeric materials, pharmaceuticals, flavorings, preservatives, dyestuffs, fragrances t etc.

A significant knowledge of chemistry is often required in a number of professions such as environmental scientist, chemical engineers, related professions including medicine, pharmacy, medical technology, nuclear medicine, molecular biology, biotechnology, pharmacology, paper science, pharmaceutical science, hazardous waste management, forensic science and patent law.

It is to show you that chemistry is much closer to all of us. Lets take a brief look at two elements on the periodic table with which all of us are familiar- Hydrogen and Sodium.

Hydrogen: you might of heard of hydrogen bomb, experts say that it has the potential to be thousand times more powerful than atomic bomb which killed 200 thousand people in Japan during world war II .Hydrogen is an extremely reactive element. But hydrogen is readily found in environment and is absolutely vital to our survival in the form of water. These crazy reactive hydrogen atoms can be tamed by linking them to oxygen atoms to form H₂O.i.e water. Water does not blow up people. How can this be? Theories

developed by chemists tells us that it all has to do with electrons found in atom of these elements, getting these electrons satisfied can result in reactive substance becoming stable like H_2O .

Sodium: Lets turn to another element (another rowdy) sodium, like hydrogen, Sodium is an extremely reactive element. Sodium reacts with water so violently that it must be stored in kerosene to keep it from contacting water vapor in the air. But if we allow Sodium atoms to satisfy their desire of losing one electron by donating it to an atom say chlorine, we end up with a very stable compound $NaCl$ (sodium chloride) known as table salt. Table salt is obviously not going to explode when mixed with water. This is amazing chemistry happening here.

In the media we hear a lot about limiting Sodium in our diet. The basic problem here lies in the idea that where salt goes, so goes water. If we eat lots of salty food, the $NaCl$ goes into our blood stream and takes along lots of water. Our blood volume increase which makes it harder for our heart to pump. Because our hearts are working harder and pushing the blood harder, our blood pressure reading go up. This results in damage to blood vessels and consequently organs everywhere in body. So, understanding the chemistry of salt intake is very important.

Health is the greatest gift,
contentment the greatest wealth
faithfulness the best relationship.
.....Buddha

6. SACRED PLANTS AND THEIR MEDICINAL IMPORTANCE

K. SARITHA,
Asst. Prof. of Botany

The traditional medicinal practice in various religions shows the symbiotic relation of human beings with nature. Since ancient days Indians are worshipping the nature. Many animals and plants are conserving as sacred plants. These sacred plants and sacred grooves represent the traditions and customs of indigenous people. Many plants in religious texts were worshipping against the various gods and goddesses. Not only in Hindu religion, in the holy texts of Bible (Red sandal wood, Date palm, Cassia, *Papaver somniferum*, *Conium maculatum* etc.) and Quran (Date palm, Grapes, Pomegranate, Sweet basil etc.) many plants mentioned as sacred plants.

Sacred plants in Hindu religion:

S. No.	Plant name	Sacred value	Medicinal value
1.	<i>Aegle marmelos</i> (Maredu, Beal tree)	This plant mainly grows in Lord Shiva temples and leaves are used to worship Lord “Shiva”	Bark is used to cholera, Fruits – Diarrhea, laxative and stomachic
2.	<i>Phyllanthus emblica</i> (Usiri, Amla)	This tree worships by people in Karthika masam as “Lord Vishnu”	Fruits used to Dandruff, anemia, heart diseases, diuretic and as nutritive tonic
3.	<i>Calotropis gigantea</i> (Tella jilledu)	The flowers are used to worship Lord Hanuman. This plant regarded as transformation of Surya.	Latex for wounds, root for Arthritis, flowers for rheumatic pains.
4.	<i>Curcuma longa</i> (Pasupu, Tumeric)	Rubbing of Powder paste to women is essential in many Hindu religious ceremonies.	Rhizome is antiseptic, wound healing, used to cold, cough, acne and for skin diseases.
5.	<i>Cynodon dactylon</i> (Garika)	It is used to worship the “Lord Ganesh” in Ekavishanti (21) pooja.	Whole plant for Kidney stones, skin diseases and wound healing.
6.	<i>Prosopis cineraria</i> (Jammi chettu)	This plant was worshipped on Dussehra.	It is used to leprosy, dysentery, asthma, leucoderma and dyspepsia
7.	<i>Ficus benghalensis</i> (Marri, Banyan tree)	Prop roots of the tree used to worship “Goddess Lakshmi”. And dry twigs of the tree are used as samidhas for sacred fire.	Bark for diarrhea, diabetes, Prop roots for memory power.

S. No.	Plant name	Sacred value	Medicinal value
8.	<i>Ficus religiosa</i> (Ravi, Peepal tree)	Buddha attained enlighten under this tree. Thread and clothes are wrapped around the tree as a holy worship.	It is used to treat skin diseases, gonorrhea and ant diabetic.
9.	<i>Mangifera indica</i> (Mamidi, Mango)	Twigs and leaves are used to decorate the houses and temples in religious ceremonies. Dry twigs as samidhas.	Fruits are laxative, diuretic, bark for migraine and seeds for diarrhea
10.	<i>Oscimum sanctum</i> (Thulasi)	It is worshiped as “Goddess Lakshmi” in every house in Hindu culture.	Leaves used to cold, cough and asthma.
11.	<i>Anthocepholous indica</i> (Kadamba)	It is considered as “Lord Krishna”. Flowers are used to worship Goddess Lakshmi”.	Plant used as anthelmintic, diuretic and laxative for wound healing.
12.	<i>Nyctanthus arbo-artis</i> (Parijatam)	It is believed to be “kalpa vriksh”, which emerged during Samudra Mathan. Lord Krishna brought this for his wives from Indraloka.	Leaves anthelmintic used to rheumatic pains. Seeds for dandruff.
13.	<i>Azadiractha indica</i> (Vepa, Neem)	It is used to worship “village goddess” and leaves used to decorate Bonalu.	Bark used to fever, jaundice, tooth problems .Leaves for chicken pox, sin diseases. Flowers for Jaundice

The mind is everything

What you think you

become.

.....Buddha

7. ALIEN INVASIVE SPECIES

B. KALPANA
Asst. Professor of Zoology

An alien species is a species introduced outside its natural distribution. According to experts, alien species become 'invasive' when they are introduced deliberately or accidentally outside their natural areas, where they out-compete the native species and upset the ecological balance. They are also called Exotic species.

The most common characteristics of invasive species are rapid reproduction and growth, high dispersal ability, ability to survive on various food types, and in a wide range of environmental conditions and the ability to adapt physiologically to new conditions, called phenotypic plasticity.

The alien invasive species are non-native to an ecosystem. They may cause economic or environmental harm or even adversely affect human health.

Recent Issues:

1. In the wake of a locust attack threat from across the Pakistan border, authorities here have gone on an alert to deal with a swarm of the tropical grasshoppers entering India since the insects can devastate standing crops i.e., it is desert locust.

The desert locust (*Schistocerca gregaria*) is a species of locust, a swarming short-horned grasshopper in the family Acrididae. Plagues of desert locusts have threatened agricultural production in Africa, the Middle East, and Asia for centuries. The desert locust is an invasive species that is both well known and feared because of the large-scale agricultural damage it can cause.

2. Floods and landslides in Kerala have brought several alien invasive species of fishes into the State's water bodies, posing a threat to native biodiversity and the aquatic environment.

A joint research team which carried out a rapid assessment of the impact of the floods on water bodies has documented the presence of 11 alien species, including the alligator gar (*Atractosteus spatula*), arapaima (*Arapaima gigas*), arowana, giant gourami, grass carp, kissing gourami, (*Helostoma temminckii*), koi carp, gold fish (*Carassius auratus*), shark catfish also known as Malaysian vaala, red-bellied pacu (*Piaractus brachypomus*) and three-spot gourami and four alien invasive species namely the East African catfish, common carp, tilapia (both cultivated and ornamental varieties) and sucker catfish.

3. Chilka Lake became degraded mainly through siltation and the choking of the seawater inlet channel, this resulted in the proliferation of invasive freshwater species, a decrease in fish productivity, and an overall loss in biodiversity.

Negative Consequences of Invasive Species:

Invasive species can have several negative impacts on the areas that they invade. Perhaps the most significant of these is the widespread loss of habitat. Some invaders can

physically alter the habitat in addition to destruction. Other invasive species may not destroy habitat but can have an impact by killing large numbers of endemic species.

Invasive species can also impact human health. Invasive zebra mussels accumulate toxins in their tissues like PCBs and PAHs.

In addition to these impacts, invasive species can also have enormous economic costs.

Zoological Survey of India Report on Invasive Species

The Zoological Survey of India (ZSI) has for the first time compiled a list of 157 alien invasive animal species! This list excludes the invasive microbe species. The compilation was announced on the sidelines of the National Conference on Status of Invasive Alien Species in India organised by the Zoological Survey of India and the Botanical Survey of India.

Highlights: The 58 invasive species found on land and in freshwater comprise of 19 fish species, 31 species of arthropods, 3 of molluscs and birds, 1 of reptile and 2 of mammals. Among alien invasive marine species, genus *Ascidia* accounts for the maximum number of species (31), followed by Arthropods (26), Annelids (16), Cnidarian (11), Bryozoans (6), Molluscs (5), Ctenophora (3), and Entoprocta (1).

What we think, we
become.

.....Buddha

8. EXAMINATION STRESS

Dr. SHABEEH FATIMA,
Head, Department of English

It is generally during the examination time the stress level of the student's is higher than usual. Stress can either be positive or negative. Positive stress will help you stay focused and motivated. However, negative stress will make you unconfident and insecure.

Here are some tips which will help you reduce your exam stress and anxiety.

1. **Judge Yourself:** Judge all your strength and weakness and improve your skills accordingly.
2. **Confidence and Positive Attitude:** Positivity would generate optimism and make you happier. By developing positive attitude you can handle the pressure easily.
3. **Take study breaks:** All work and no play would make study sessions monotonous and boring. Maintain perfect balance between study and recreation.
4. **Reward Yourself:** Reward your own performance and you would get new zeal to perform better.
5. **Practice:** You would be able to know your strength and weakness with regular practice.
6. **Take Help:** When you face any problem take help from professionals. If you have bagged any personal problem, share them with your friends and family members. They will surely guide you at that hour of need. Don't lose your confidence.
7. **Focus on the present not the future:** Instead of worrying about future consequences, pay attention to present details and focus on managing things.
8. **Stay alert:** When focusing on mental activities it is easy to neglect your physical health. Make a concerted effort to eat and sleep well.
9. **Reduce screen time:** Make use of the technology, but at the same time reduce the screen time and increase reading course books.
10. **Health:** In a healthy body there is a healthy mind. Meditation and few easy exercises will keep the mind active. Adhering to these tips you can reduce your stress at the time of examinations.

9. ADVICE TO YOUNG GIRLS

Mrs. G. HEPHZIBAH,
Asst. Prof. of English

One of the things you must surely know,
Is when to say yes and when to say no.
There is no guide, there is no rule,
The matters neglected both in and out "O school,
You can't be consistent, there's always a reason,
For changing your mind with the change in the season.
You may be quite right in accepting at seven, Suggestions,
You had better refuse at eleven just keep in mind these tentative hints 'No' to a skunk,
who flirts and flits
Yes, to a nice young man at a dance, But
No to the one who has lived in France yes for a walk in the park in the rain,
Yes if he asks for a chance to explain yes to the witty and
No to the bore no he asks have you heard it before yes to a stranger, but use some
discretion no to all "staffers" in rapid succession. Remember, my darling's careers and
caresses depend on your choice of Nos and "Yesses".

Better than a thousand
hollow words, is one word
that brings peace.

.....Buddha

10. PHASES OF LIFE

Dr. T. KALPANA,
Asst. Prof. of English

Phases of Life *

Each and everyone has a life,
For some blunt and for some as sharp as knife.
Each stage of life has a unique gift,
Wherein the individual personality shifts.
A child not yet born has a humanity hold,
It could be anything that Shakespeare told.
A new born instills a sense of optimism,
Little did he know that he has to face racism.
A childhood is all about playfulness,
Which also includes a lot of carelessness.
But the imagination power is strong,
With a creative mind that serves for long.
Then puberty unleashes a powerful jet,
Connecting to the people he met.
Starts struggling for family and friend circle,
Getting a good job is always a miracle.
Those matured have their family raised,
By working, through society get praised.
Elders represent a source of wisdom,
Remembering all the culture and custom.
Now the people in our lives have died,
But they will go for an eternal ride.
As they form a part of my greater whole,
I would pray to rest in peace their soul.
By supporting the stages of human cycle,
By conquering the great battle.
This is what you should know my friend,
That the phases of life thus come to an end.

11. PHYSICS PRINCIPLES IN VARIOUS HOME APPLIANCES

Mrs. GOPARAJU SAVITRI,
Asst. Prof. of Physics

We come across various home appliances in day-to-day life and it is very interesting to understand the basic Physics principles applied in few of those home appliances which makes our life easy.

Pressure Cooker:

The basic principle involved in pressure cooker is the “Boiling point of water increases with increase in pressure”. A pressure cooker is basically a vessel with a really tight-fitting lid and few safety valves. When you lock the lid onto the cooker, you are basically sealing the vessel shut and you are creating a closed pressure system.

You know Ideal Gas Law and the equation is $PV=nRT$, where P = pressure, V = volume and T = temperature (n = the number of moles and R = is the gas constant, but they are not going to change in this case so we can ignore them, and since the volume of your vessel will not really change, we will ignore this also). This equation applies to a closed system.

So basically, we have an equation of $P=T$. So, if we increase the pressure, the temperature will also increase, and vice versa.

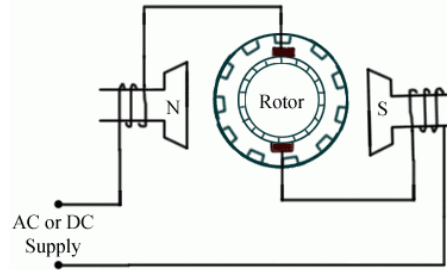
In an uncovered vessel at sea level, water boils at 100°C. The steam that evaporates from this pot is also at 100°C. No matter how much heat is supplied to the water, it will remain at 100°C. If a tightly-sealing cover is put on the pot to trap the steam, the pressure inside the pot goes up. As the pressure rises, the temperature of the water and steam inside the now pressurized pot also rises above the normal 100°C boiling point temperature.

So, when you begin heating the cooker, the internal pressure will increase, and as the pressure increases, the internal temperature also rises. This will continue to increase until it reaches the trigger pressure of the safety valves/Whistle, about double the psi at sea level.

Since temperature increases in pressure cooker ~121°C (~15 psi pressure) the cooking time reduces ~one third of original time.

2. Mixer Grinder:

When electricity is provided to a mixer grinder, the blades start rotating. A motor converts electricity to mechanical energy. A coil is placed between magnetic field. When, a current run in the coil, the coil experiences a magnetic force which causes it to rotate. The blades are attached with this. When the blades rotate, it mixes and grinds the ingredients.



The working principle of motor is Since the field winding and the armature winding, both are connected in series, the same current passes through them when the motor is connected to either AC or DC. The magnetic fluxes of series field and armature produced by this current react with each other and, hence produce rotation. Because the series field magnetic flux and armature current reverse at the same time, the torque always acts in the same direction.

Iron Box:

When an electric current is passed through a coil (or any other heating element present in the iron), it gets very hot. This heat is then transferred to the base plate (the smooth, flat surface that you place against clothes while ironing) through conduction, which elegantly and precisely irons your clothes.

The temperature needed for this is usually around 180-220°C depending on the type of cloth. Ironing works by loosening the bonds between the long-chain polymer molecules in the fibres of the cloth. The fibres are straightened by the weight of the iron while the molecules are hot, and they hold their new shape as they cool. Some fabrics, like cotton, require the addition of water to loosen the intermolecular bonds. A thermostat is used to control the temperature of Iron box depending upon the type of clothes option you selected in the Iron box.

Water Heater

An electric heater is an electrical device that converts an electric current into heat. The heating element inside every electric heater is an electrical resistor, and works on the principle of Joule heating: an electric current passing through a resistor will convert that electrical energy into heat energy.

12. CONTRIBUTION OF INDIAN WOMEN TO SCIENCE AND TECHNOLOGY

Dr. CHITLA SNEHALATHA REDDY,

Asst. Prof. of Physics,
Convener Women Empowerment Cell

Gender equality has been one of the most debated topics even today in 21st centuries. Women deserve equal rights and opportunities as men, yet there have been many challenges that a woman has to face regularly. Contribution of women in any field has been as worthy as men but somehow their contributions are not much talked about or have been forgotten with time. This is true even in the field of science and technology. While we know about the priceless contribution of great scientists like C V Raman, Meghnad Saha, Dr A P J Abdul Kalam, many of us are unaware of the contributions of Indian women in the field of science.

In this article I would like to put forward the ten Indian women's remarkable contribution to Science and technology.

Kadambini (Basu) Ganguly (18 July 1861 – 3 October 1923) was the first female graduates of the British Empire. She was also the first female physicians of South Asia to be trained in western medicine. She studied medicine at the Calcutta Medical College and got graduated in 1886.

Anandi Gopal Joshi (31 March 1865 – 26 February 1887) was another woman from India also obtained a degree in Western medicine in 1886, she graduated from Women's Medical College in Philadelphia, USA. So, she became the first Indian to study medicine from abroad.

Anna Mani (23 August 1918 – 16 August 2001) was an Indian physicist and meteorologist; she was also a former Deputy Director General of the Indian Meteorological Department. Who made significant contributions in the field of meteorological instrumentation? From Imperial College London she studied meteorological instruments and joined the Meteorological department in Pune after returning to India in 1948. She researched and published numerous papers on ozone, solar radiation and wind energy measurements. She also authored two books, The Handbook for Solar Radiation data for India in 1980 and Solar Radiation over India in 1981. In 1987 Anna Mani won the K.R. Ramanathan Medal.

Rajeswari Chatterjee 60 years ago Rajeswari Chatterjee was the only woman faculty in the Indian Institute of Science. She is the first Woman Scientist to initiate the Field of Microwave Engineering and Antennae Engineering in India. In 1949, she received her MS degree in Electrical Engineering from Michigan University, USA. She got retired as Professor and Chairperson of the Department of Electro-Communication Engineering, Indian Institute of Science, Bengaluru.

Dr Indira Hinduja We all know her as the first Indian women who delivered a test tube baby in 1986. She also pioneered the Gamete Intra Fallopian Transfer (GIFT) method helping in the birth of India's first GIFT baby in the year 1988. Formerly she is

an Indian gynaecologist; obstetrician and infertility specialist who is based in Mumbai. For menopausal and premature ovarian failure patients she developed an oocyte donation technique. On 24 January 1991, she gave the country's first baby out of this technique.

Kiran Mazumdar Shaw Chairman & Managing Director, Biocon Limited is on the Forbes list of the worlds' 100 most powerful women and in the business list on top 50 women released by the Financial Times'. She started Biocon in the year 1978 in the garage of her rented house in Bangalore with a capital of Rs. 10,000. Currently, the net worth of the company is more than \$ 900 million. Biocon manufactures drugs for cancer, diabetes and auto-immune diseases.

Dr Aditi Pant is an oceanographer by profession and is one of the first Indian women to visit the icy continent Antarctic. In 1983-84 she was a part of the third Indian expedition to Antarctica and was honored with the Antarctica Award along with Sudipta Sengupta, Jaya Naithani and Kanwal Vilku for their outstanding contribution to the Indian Antarctic programme. Dr Aditi completed her MS in Marine Sciences from the University of Hawaii and obtained a doctorate from the London University in the Physiology of Marine Algae. She was placed with the National Institute of Oceanography (Goa) and the National Chemical Laboratory, Pune.

Madhuri Mathur made Indian women life easier with her strenuous efforts, hard work, skills, and labour that made Sumeet mixer a household name and necessity. 40 years ago, along with her engineer husband devised Summit mixer grinder. Before her venture, having a kitchen helper that could blend, chop, and mince at a touch of a button was just a dream for millions of Indian women.

Dr Suman Sahai is the founder of the Gene Campaign in India. She is the voice of the millions of Indian farmers. Currently, her campaign is running in 17 states. She is the brains and the brawn behind the patent campaign for Azadirachta indica (Neem) and Turmeric (Haldi). D Sahai believes that 'nature's technology can meet the needs of humanity'. Her name is listed in the successful women pioneers in India because of her single-minded dedication to her cause. She made the Indian government to notice the actual problems faced by Indian farmers.

Kalpana Chawla (17 March 1962– 1 February 2003) was the first Indian-American astronaut and a first Indian woman in space. In 1997 she first flew on Space Shuttle Columbia as a mission specialist and primary robotic arm operator. The NASA chief called her a "Terrific astronaut". On February 1, 2003, the U.S. space shuttle Columbia with a seven-member crew including Chawla, 41, disintegrated in flames over central Texas in a while before it was scheduled to land at Cape Canaveral in Florida.

Let's salute all these women, who made our life easy and comfortable.

JaiHind

13. CYBER ATTACKS

B. SWARNALATHA,
Lecturer in Computers

Cyber-attacks are unwelcome attempts to steal, expose, alter, disable or destroy information through unauthorized access to computer systems.

A cyber-attack happens when cyber criminals try to gain illegal access to electronic data stored on a computer or a network. The intent might be to inflict reputational damage or harm to a business or person, or theft of valuable data. Cyber attacks can target individuals, groups, organizations or governments.

Cyber criminals use different methods to launch a cyber attack that includes malware, phishing, ransomware, man-in-the-middle attack or other methods.

Types of cyber-attacks: -

Malware: Malware breaches a network through a vulnerability, typically when a user clicks a dangerous link or email attachment that then installs risky software.

Phishing: Phishing is the method of sending fraudulent communications that seems to come from a reputable source, usually through email. The goal is to steal or get sensitive data like credit card and login information or to install malware on the victim's machine.

Man-in-the-middle: Man-in-the-middle attacks occur when attackers insert themselves into a two-party transaction. On unsecure public Wi-Fi, attackers can insert themselves between a visitor's device and the network. Without knowing, the visitor passes all information through the attacker.

Denial-of-service attack: A denial-of-service attack fills systems, servers, or networks with traffic that exhausts resources and bandwidth. That makes the system incapable to fulfill legitimate requests.

Drive-by Attacks

In a drive-by attack, a hacker embeds malicious code into an insecure website. When a user visits the site, the script is automatically executed on their computer, infecting it. The designation "drive by" comes from the fact that the victim only has to "drive by" the site by visiting it to get infected. There is no need to click on anything on the site or enter any information.

Cyber-attacks can be reduced by:

Organizations can reduce cyber-attacks with an effective cyber security system. An effective cyber security system prevents, detects and reports cyber-attacks using key cyber security technologies and best practices, includes:

- Identity and access management (IAM)
- A comprehensive data security platform
- Security information and event management (SIEM)
- Offensive and defensive security services and threat intelligence

14. 5G TECHNOLOGY

Smt. PRATHIBHA,
Lecturer in Computers

- 5G is the 5th generation mobile network.
- It is a new global wireless standard after 1G, 2G, 3G, and 4G networks.
- Up to 100 times faster than 4G, 5G is creating never-before-seen opportunities for people and businesses.
- 5G enables a new kind of network that is designed to connect virtually everyone and everything together including machines, objects, and devices.
- Higher performance and improved efficiency empower new user experiences and connects new industries.
- With 5G, data transmitted over wireless broadband connections can travel at multigigabit speeds, with potential peak speeds as high as 20 gigabits per second (Gbps).
- With 5G technology, we can help create a smarter, safer and more sustainable future.
- 5G is based on OFDM (Orthogonal frequency-division multiplexing), a method of modulating a digital signal across several different channels to reduce interference.
- 5G also uses wider bandwidth technologies such as sub-6 GHz and mm Wave.
- 5G is designed to not only deliver faster, better mobile broadband services compared to 4G LTE, but can also expand into new service areas such as mission-critical communications and connecting the massive IoT.

Comparison with previous generations

- **First generation (1G)** -- 1980s: 1G delivered analog voice.
- **Second generation (2G)** -- Early 1990s: 2G introduced digital voice (e.g. CDMA- Code Division Multiple Access).
- **Third generation (3G)** -- Early 2000s: 3G brought mobile data (e.g. CDMA2000).
- **Fourth generation (4G LTE)** -- 2010s: 4G LTE ushered in the era of mobile broadband.
- 1G, 2G, 3G, and 4G all led to 5G, is designed to provide more connectivity than was ever available before.
- **5G is a unified**, more capable air interface. It has been designed with an extended capacity to enable next-generation user experiences, empower new deployment models and deliver new services.
- With high speeds, superior reliability and negligible latency, 5G will expand the mobile ecosystem into new realms.
- 5G will impact every industry, making safer transportation, remote healthcare, precision agriculture, digitized logistics — and more — a reality.

5G being used: 5G is used across three main types of connected services, including

Enhanced mobile broadband: In addition to making our smartphones better, 5G mobile technology can usher in new immersive experiences such as VR and AR with faster, more uniform data rates, lower latency, and lower cost-per-bit.

Mission-critical communications: 5G can enable new services that can transform industries with ultra-reliable, available, low-latency links like remote control of critical infrastructure, vehicles, and medical procedures.

Massive IoT: 5G is meant to seamlessly connect a massive number of embedded sensors in virtually everything through the ability to scale down in data rates, power, and mobility—providing extremely lean and low-cost connectivity solutions.

A defining capability of 5G is that it is designed for forward compatibility—the ability to flexibly support future services that are unknown today.

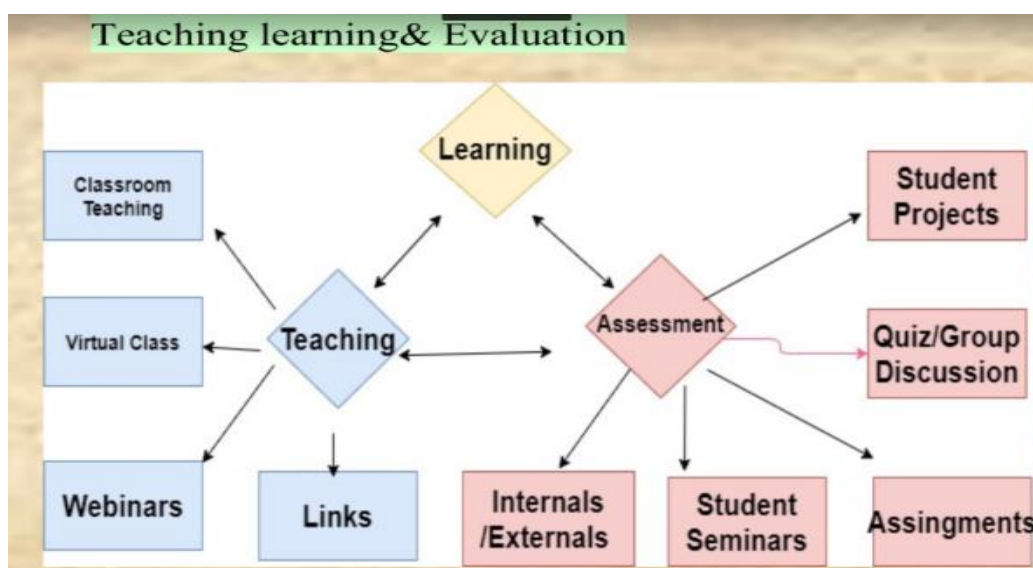
It is better to travel well
than to arrive.

.....Buddha

15. TEACHING LEARNING AND EVALUATION

Mrs. MANGAMMA,
Asst. Prof. of Mathematics

Teaching can be defined as engagement with learners to enable their understanding and application of knowledge, concepts and processes. It includes design, content selection, delivery, assessment and reflection. To teach is to engage students in learning; thus teaching consists of getting students involved in the active construction of knowledge. A teacher requires not only knowledge of subject matter, but knowledge of how students learn and how to transform them into active learners. Good teaching, then, requires a commitment to systematic understanding of learning. The aim of teaching is not only to transmit information, but also to transform students from passive recipients of other people's knowledge into active constructors of their own and others' knowledge. The teacher cannot transform without the student's active participation, of course. Teaching is fundamentally about creating the pedagogical, social, and ethical conditions under which students agree to take charge of their own learning, individually and collectively.



Learning can be defined as the activity or process of gaining knowledge or skill by studying, practicing, being taught, or experiencing something (Merriam-Webster dictionary). Learning is about what students do, not about what we as teachers do.

Evaluation is defined as the act of judging the amount of learning that took place as a result of learning and teaching.

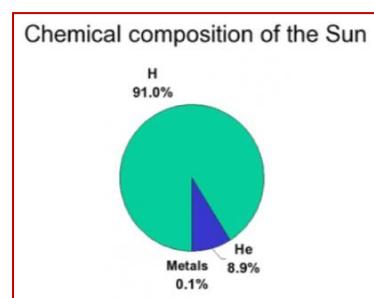
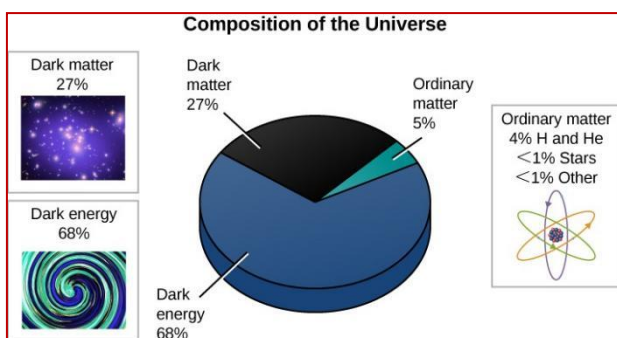
Evaluation is a systematic determination of a subject's merit, worth and significance, using criteria governed by a set of standards. ... The primary purpose of evaluation, in addition to gaining insight into prior or existing initiatives, is to enable reflection and assist in the identification of future change.

16. CHEMISTRY AROUND US

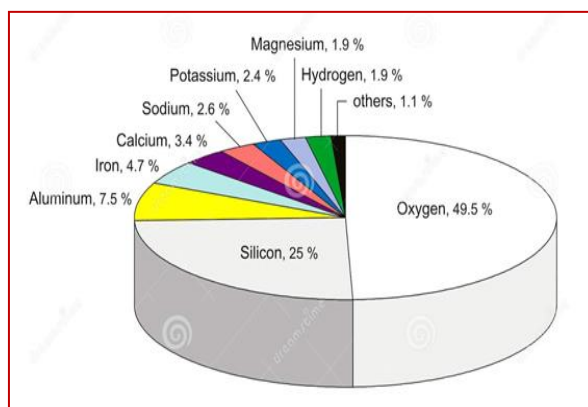
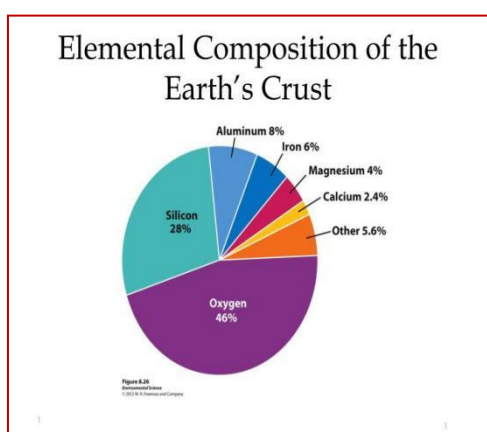
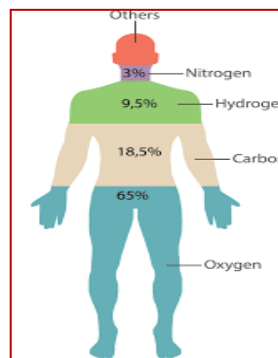
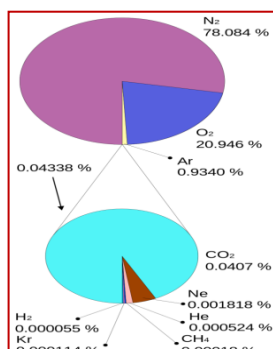
Dr. N. SRINIVAS,
Asst. Prof. of Chemistry

CHEMISTRY is very much associated with you and the world around you. It is surprising to know that innumerable number chemical processes/reactions are taking place in your body and also world around you in a second. Roughly 37 thousand billion billion chemical reactions per second are taking place in the human body! But If I ask you what comes to your mind the instant you hear the word CHEMISTRY, I am pretty sure that you are going to envision yourself standing in a chemistry lab and doing some experiments-lot of fumes and smells!. Is not it? But if you look closely at the world around you, infinite chemical reactions are occurring at any second. Thus, it can rightly be said that chemistry forms a large part of your daily life. Right at the moment when you go to sleep till you wake up, infinite chemical processes are taking place in each cell of your body. Even processes occur when you wake up, all your daily activities like drinking water, taking a shower, cooking your food, cleaning your car, laughing or crying are guided by different chemical processes. Let's first see the chemical composition of the Universe, the Earth, the Sun etc., and then discuss some examples of chemistry which occur around us.

1. **The Composition of Universe:** The current best estimates of the contents of the universe. Luminous matter in stars and galaxies and neutrinos contributes about 1% of the mass required to reach critical density. Another 4% is mainly in the form of hydrogen and helium in the space between stars and in intergalactic space. Dark matter accounts for about an additional 27% of the critical density. The mass equivalent of dark energy (according to $E = mc^2$) then supplies the remaining 68% of the critical density. The chemical composition of the Universe is dominated by the hydrogen and helium produced in the Big Bang. The remaining 90 or so chemical elements are produced in stars and constitute only a few percent of the overall mass. Astronomers refer to these elements (all except hydrogen and helium) as metals, even though this includes elements such as carbon and oxygen which are not considered metals in the normal sense.



The Composition of Earth: The composition of the atmosphere of Earth is 21 percent molecular oxygen, 78 percent molecular nitrogen, and 1 percent argon. Trace amounts of carbon dioxide, water vapor, and other gases are also present.



1.The Composition of Human Body: Almost 99% of the mass of the human body is made up of six elements: oxygen, carbon, hydrogen, nitrogen, calcium, and phosphorus. Only about 0.85% is composed of another five elements: potassium, sulfur, sodium, chlorine, and magnesium. All 11 are necessary for life. The remaining elements are trace elements, of which more than a dozen are thought on the basis of good evidence to be necessary for life.^[1] All of the mass of the trace elements put together (less than 10 grams for a human body) do not add up to the body mass of magnesium, the least common of the 11 non-trace elements.

17. DANCE WILL BOOST YOUR HEALTHY LIFE

J. ASHOK REDDY,
PD PGCW Hanumakonda

The object of this article is to know about systems of bodily exercises for men and women of all ages. These systems were prevailed in prehistoric times. Various types of dances, dance in the sense being the alternate stretching and relaxing of the muscles, with concentration in the lower half of the trunk. It is a fact that by rotating the lower half of the trunk all the muscles of the body are necessarily thrown into action, just as all the spokes and the rim of a wheel move when the center hub is turned.

Dance is an enjoyable health promoting physical activity which many people incorporate into their lifestyles today. This physical activity appeals to some who many are not active due to busy life styles and therefore may be another significant alternative of dancing exercise. Dance for health has become an important factor in the prevention, treatment and management in several health circumstances. It is not only good for your physical health but it also contributes to your mental health. Dance is an art which is learned from many cultures. Types of dance can entail body movements, expression and coordination both. Dancing can be a way to stay fit for people of all ages, shapes and sizes. It has a wide range of physical and mental benefits including improved condition of heart and lungs, increased muscular strength, endurance and motor fitness, increased aerobic fitness, improved muscle tone, weight management, stronger bones and reduced risk of osteoporosis, better coordination, agility and flexibility, improved balance and spatial awareness and improved general and psychological well being.

- 1) Most forms of dance may be considered anaerobic exercise and reduce the risk of cardiovascular disease help weight control, stress reduction and other benefits commonly associated with physical fitness.
- 2) A study by Dr Paul Dougall at Strathclyde University in 2010 concentrating on older women found that Scottish country dancers were more agile have stronger legs and can walk more briskly than people of the same age who took part in exercises such as swimming, walking, golf and keep-fit classes.
- 3) In ancient days these dances were accompanied by songs and music. The rhythm and music of these songs as well as the words were such as to regulate the breathing in accordance with the muscular activity involved.
- 4) Therefore like other physical activities dancing activity (all types of dancing styles) plays significant role to enhance all forms of fitness including physical and mental. Dancing activity may be advised to include in the part and parcel of physical education curriculum.

18. HOW TO BE A GOOD CITIZEN – 10 WAYS TO SHOW GOOD CITIZENSHIP

Md. RAFI,
TSKC Mentor

We should all aspire to be good citizens of our country, and of the world.

The concept of citizenship was born in the city-states of Ancient Greece; specifically, in Athens. Greek education at the time was designed to instruct citizens in the values, intellectual frameworks, and habits-of-mind required to be free men. That is, to actively participate in the political system that shaped their lives and guaranteed their freedoms.

Today, being a citizen means that you're part of a group, and that you have legal and political rights within that group. It brings with it both privileges and obligations. I would argue that we each have a duty, or an obligation, to be good citizens. After all, a nation is only as healthy as its individual citizens.

Below you'll find 10 ways to be a good citizen.

1. A Good Citizen is Patriotic:

Patriotism is having and showing devotion for your country. It means having an attachment to certain national cultural values and showing critical loyalty to your nation.

A good citizen loves their country—a good citizen is a patriot.

2. Model the Personal Qualities of Good Citizens.

Honesty – tell the truth. Integrity – be morally upright. Responsibility – be accountable for yourself and your actions. Respectfulness – treat others how you want to be treated. Compassion – show fellowship with your compatriots who are down on their luck by volunteering and/or making donations to charities. Kindness – be friendly. Tolerance – be tolerant of other races and religions. Courtesy – be considerate of others. Self-Discipline – have self-control and cultivate the ability to follow through on what you say you're going to do. Moral Courage – stand up for what you consider to be wrong and defend those who cannot defend themselves. Love of Justice – be fair and ask that others be so as well.

3. Be a Productive Member of Society.

A good citizen contributes to their nation by being productive. They're productive employees, business owners, artists, public servants, caregivers, and so on. Good citizens share their skills, talents, and abilities with others. They make a positive contribution to their nation.

4. Be Active in your Community.

A good citizen is active in their community. They participate in the social life of their city or town, and they look for ways to make their communities a better place to live.

5. **Keep Yourself Well-Informed.**

Read to educate yourself about the important issues facing your nation. In 1761, John Adams implied that one of the reasons to emphasize literacy is that it makes people better citizens. Look at the following quote:

“Every man has in politics as well as religion a right to think and speak and act for himself. I must judge for myself, but how can I judge, how can any man judge, unless his mind has been opened and enlarged by reading?”

“All tyranny needs to gain a foothold is for people of good conscience to remain silent.”

7. **Participate in Your Nation’s Political Life.**

If you want to be a good citizen, you should be politically active. There are many ways to this. Here are some ideas:

Identify an issue you care about and pursue it. Attend rallies and events. Go to city council meetings. Join a political organization. Volunteer for a political campaign. Vote! Do your part to elect capable, civic minded leaders. Run for political office. As a citizen, you have the right to have your voice heard. Exercise that right.

8. **Be a Mentor.**

Today’s kids are tomorrow’s citizens. Help shape the citizens of the future by mentoring kids. Some ideas on ways you can mentor kids are the following:

Talk to your own kids about civics and teach them to be good citizens. Join a school-based mentoring program and tutor kids who aren’t doing well academically. Get involved in an organization such as Big Brothers Big Sisters.

9. **Be Well-Rounded.**

The third point in this blog post indicates that a good citizen has to be productive. That is, they need to have the knowledge necessary to produce in today’s world — technical skills, legal skills, medical skills, and so on. However, a good citizen should also be well-rounded.

10. **Order Your Corner of the World**

Your home is a microcosm of your country. If you want to live in a clean, healthy, prosperous, happy nation, start by creating these circumstances at home.

Conclusion

I, for one, am making an effort to be a good citizen of Panama, and of the world. How about you? Live your best life by being a good citizen.

Contribution of Indian Women to Science and Technology

19. PERSONALITY DEVELOPMENT

MAMIDALA SHAILAJA,
Asst. Prof. of Political Science

Personality development is not an overnight task. It requires lots of time and efforts to groom and shape personality. However, personality development is the outcome of so many factors which include will-power, confidence, concentration, memory, and smile, humour, to name a few.

Will-power is one of the key factors necessary to develop personality. It is a phenomenon which lies in human mind. It needs to be groomed, shaped and exploited. Concentration, meditation and faith can be of great help in this regard. All the great men of the world who rose to the height of success were men of strong will. All the geniuses, scholars and eminent personalities had this trait in abundance. It was their will which helped and guided him to rise against all odds. They change the direction of wind in their favour. Men of will never step back in face of adversaries. They have full confidence in their will. Thus, they believe and taste success at the end of the day.

Strong will leads to the development of self-confidence. Self-confidence is very important to succeed in life. A person who has confidence in his work will not give up in the face of difficulties. He will fight courageously unless and until he succeeds in getting his target achieved. Failures and hardships do not discourage a confident person. It is his confidence which promotes him to try again and again.

Concentration is an important ingredient of personality development. Concentration helps in exploiting the potentiality hidden in human beings. Good habit and memory vitalize the efficiency of mind. They help in acquiring the power of concentration. They contribute in success. It is the power of concentration which gives strength to even the weakest creature.

Memory has close relation with concentration. Memory comprises—retention, recollection and recognition. Sharp memory helps to retain and recall various facts, figures and other things whenever required

Humour adds colour to personality. It makes personality interesting. It removes boredom. It keeps his spirit high. Humour lends charm even to dull and dreary subject of life. A hearty laugh wipes out misery and gloom and kindles a spirit to struggle and fight against the adverse situation. Thus adverse situation fails to bring him down. A humorous person keeps himself above all scares and worries. He spreads cheerfulness around him and becomes popular among his circles.

In addition, a large number of external, inherent and acquired qualities contribute to build up the personality. These qualities include integrity, humility, self-respect, etc. All these factors combine to shape the personality of a man. These cannot be cultivated within a day or two. It should be inculcated from early childhood. Both parents and teachers have a significant role in the personality development of a man

ARTICLES BY STUDENTS

SEXUAL HARRASMENT OF WOMEN AT WORKPLACE

CH. PRANITHA,
BA II Year, **005201001**



On the occasion of women's day, on behalf of Competitive cell, Department of Public Administration we have done a student study project on sexual harassment of women at workplace.

The preamble of the constitution of India says that equality of status and of opportunity must be secured for all its citizens; equality of every person under law is guaranteed by article 14 of the constitution.

Sexual harassment constitutes a gross violation of women's rights to equality and dignity which is exploitation of women which indicates violation of human rights. Sexual harassment has its roots in the patriarchal society and its perception that men are superior to women. though sexual harassment at workplace assumed serious proportions, women do not report the matter to the concerned authorities in most of the cases due to fear of reprisal from the harasser, losing livelihood, being stigmatized, or losing personal and professional reputation.

According to data released by NCRB 2019, women's overall work participation is 25.3% in rural areas and 14.7% in urban areas from which 93% of women workers are employed in informal sector. Specially the domestic helpers. Therefore, there remain unprotected by laws.

The Supreme Court defined sexual harassment as an unwelcomed sexually determined physical, verbal and nonverbal conduct. Examples included are sexually suggested remarks about women, demand for sexual favors and sexually offensive visuals in the work place.

Supreme Court directed for establishment of redressal mechanism in the form of complaints committee which looks in the matter of sexual harassment of women at workplace. The complaints committees were mandated to be headed by a women employee. The guidelines were extended to all kinds of employees.

Vishaka guidelines established the international standards that could save to expand the scope of India's constitutional guarantees, India's innovative history in tackling work place. Sexual harassment beginning with vishaka guidelines and subsequent legislation has given critical visibility to the issue workplaces now own their responsibility within this and ensure that women can work in safe and secure spaces.

RAPES IN INDIA:

Rape is the fourth most common crime against women in India sexual harassment is frequently overlooked in India. Sexual harassment is frequently overlooked in India. India was no exception to this trend with women from all walks of life sharing their stories of sexual harassed issues. That cannot be registered because of traditions and

customs of family such as sexual harassment by husband. Nonetheless, the practice remains a depressingly common phenomenon in India where women are sexually harassed every twelve minutes.

POSH ACT 2013 [PREVENTION OF SEXUAL HARASSMENT ACT 2013]:

Sexual harassment of women at workplace has been in existence for many years and at workplace there were no rules or guidelines specified as to what actually constituted sexual harassment and what women could do about it. So considering the importance of women at workplace and effects of sexual harassment, 'prevention, prohibition and redressal act 2013 which is also called as POSH ACT 2013 was enacted. This sexual harassment created insecure, hostile environment and they had to deal with physical, emotional, psychological kinds of stress and leads to emotional imbalance which affects women's performance at work. It ultimately affects the economic and social growth of women.

'MEE TOO' campaign was started in India in 2018 to raise awareness on existence sexual abuse. This movement saw that the women coming out and raising their voice.

POCSO ACT 2012:

The protection of children from sexual offences [POCSO ACT] was enacted in 2012 and is a special law to protect children. It recognizes that boys can be victims of sexual violence as well. The Indian penal code doesn't recognize the sexual assault can be committed on boys. The act also increased the scope of reporting sexual crimes against children. The special feature of this act is it has child friendly procedures for redressal mechanism.

There are many other schemes that would ensure the safety and security of women such as:

VISHAKA GUIDELINES: vishaka guidelines are the set of procedural guidelines for use in India in case of sexual harassment.

WOMEN HELPLINE: The scheme envisages 24 hour emergency and non emergency response to women affected by violence.

WORKING WOMENS HOSTEL: GOI introduced this scheme for expansion of buildings for secure hostel facilities for working women in cities.

NIRBHAYA ACT: After the gang rape of Nirbhaya in 2012 the amendments were made to criminal law the law includes offences like sexual harassment, acid attacks, attempt to acid attacks, stalking of a women etc. NIRBHAYA FUND is used for improving security of women in working places.

UJJAWALA: Ujjawala aims at preventing trafficking of women and children for commercial and sexual exploitation.

SHE TEAMS: She teams were introduced in Telangana with a motto to provide safety and security to women. They are boom for women to get a timely help from the police.

Through our project and through secondary data we have found that:

- The number of cases increased between 2017 to 2019
- It was observed that 6the main reasons for this kind of abuses against women at working places are due to insensitive attitude and also because of the assumption that men are superior to women.
- Many initiatives like ‘MEE TOO’ have positively affected the implementation of various acts like POSH ACT, POSCO ACT, ETC.
- The number of cases also increased due to the prevailing socio-economic conditions of the family.

Through our project we would like to suggest the following:

- She shuttles which are prevailing only in Hyderabad should be extended to other parts of state as well and also should be inspired by other states.
- The complex redressal system which is now in implementation should be simplified.
- The education system should enrich and educate about ethics, moral values and sex education to students.
- The present judicial system doesn’t have any provision for victims of male sexual harassment and punishments for female convicts. The further policy making should ensure that the provisions are included.
- Children helpline services should be full fledgely used and children should be made aware about helpline services.
- The internal complaints committees which already established should be implemented properly for safety of working women, the regulating bodies should audit ICCs to ensure that there are no pending cases.
- Educational institutions should run campaigns to sensitize youth.

Therefore economically empowered women are key to the nation’s overall development and this can only be achieved if it is ensured that women work spaces across all the sectors and all over the nation have a safe and secure environment for work

Therefore, a safe working place for women is their legal right.

‘IT IS IMPORTANT TO ENSURE THAT EMPHASIS IS ON PREVENTIVE ACTION RATHER THAN PUNITIVE ACTION’ INDIA AND IT'S SECURITY

P. RISHIKA,
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15th August 1947 has marked a new beginning in the history of India. An independent nation with all-new aspirations has taken birth. At the same time, India was facing new challenges related to development and of **security**. India is the second largest country with a 1.3 billion population so it's so its security is of utmost importance. Even after 74 years of independence our country's security challenges stand afresh.

Cross border terrorism and external aggression by neighbouring states like Pakistan and China are the major security concerns for India at present. Now let us look into each of the.

TERRORISM: This is the greatest threat that we are facing today. Various terrorist outfits like Islamic State of Iraq and Syria (ISIS), Jaish eh Mohammad, Hizbul Mujahedeen etc. are carrying on blasts and killing innocent people in the name of JIHAD. In 2008 , National Security Adviser M.K Narayan has said that there are nearly 800 terrorist cells operating in our country. The evidence of the horrific terror attacks in India just to cite a few are 26/11 Taj Mahal attacks in Mumbai, Uri attacks and the most recent Pulwama attacks on February 14, 2019 in which nearly 80 soldiers were martyred. Now a days the blasts are being carried out by using drones. Recently, 2 drones attacks were carried out on J&K Air Force Base. India stands in 7th position in the Global Terrorism Index Report of 2019. It is evident that India is at high risk on grounds of terrorism. We cannot expect Uri Surgical Strike or Balakot Air Strike each and every time. Our focus should be on "**Prevention rather than Cure**". Generally, the terrorist cells are very active in the former state of Jammu and Kashmir, North Eastern states. So, elimination and neutralisation of these terrorists and over ground workers (OWG) who support them in logistics and plan execution becomes very important. This is done by Anti-Insurgency operations of Indian Army. Not only that Abrogation of article 370 and article 35A by Government of India is the right step in this direction. By maintaining strong surveillance systems and through our intelligence agencies we can predict and stop the attack before it happens. But some border areas have either weak surveillance system or less equipment so that insurgents are able to get into our country crossing international borders through tunnels and caves. All these areas should be upgraded with new and latest defence systems. For example: After the recent drone attack on J&K Air Force Base it inducted Anti Drone systems. By finding sources of terror financing we can stop terrorist activities to great extent.

Another concern for our security is from the neighbouring states of **Pakistan and China**.

Since our independence we had 3 wars with **PAKISTAN** in 1948, 1965, 1971. During the 1948 war Pakistan occupied some part of Kashmir now known as Pakistan occupied Kashmir (POK). Pakistan had allegedly claimed the Kashmir as their territory

and raised this issue in United Nations many times. It had wilfully violated ceasefire many times resulting in deaths of civilians and soldiers of India. In reality, it is a terror financing state and one of the reason for volatility in Kashmir. So, the security in our areas bordering Pakistan is even more challenging and more important.

CHINA borders eastern boundaries of India extending from Ladakh to Arunachal Pradesh Sino-China war took place in 1962. And Aksai chin of Indian side was captured by China. Until recently we had good relations with China but it's expansionist policies and aggressive attitude has caused rift between two countries. The Chinese had allegedly claimed Arunachal Pradesh, parts of Himachal Pradesh and Ladakh. Doklam clashes in 2016, the very recent clashes at Pangong Tso and Galwan Valley in which 20 Indian soldiers were martyred is an evidence of Chinese attitude. Not only this the Chinese initiatives like Belt and Road project, String of Pearls and growing of China's influence in Indian Ocean region are of great concern for India as a whole. So, we should have a two pronged strategy for security of our country. Strengthening our defence i. e Army, Navy, Air Force is the first step. Upgradation and Modernization of defence equipment with latest technology is the must. Having good relations with countries like Israel, France, USA proves to be beneficial for us in obtaining latest technology for defence. For example: Rafale aircraft has been inducted into Air Force last year. Along with this Aatmanirbhar Bharat Abhiyan has helped in manufacturing defence equipment indigenously. This move also had an positive impact on the Indian economy. Just to cite a few INS VIKRANT is an indigenously built warship, INS ARIHANT is an indigenous nuclear submarine. At the same time Defence Research and Development Organization (DRDO) is working on various advanced missiles and successfully test fired many. Some of them are BrahMos supersonic cruise missile, Laser guided Anti-Tank missile, Nuclear capable Shaurya missile, Rudram-1 Anti-radiation weapon system, Agni missiles etc. By enhancement of our defence capability we can face any kind of extreme situation if necessary.

Infrastructure development of border areas is also crucial especially in some sensitive areas such as Siliguri corridor (chicken neck) and Ladakh. Building infrastructure boosts the connectivity of the region and also trade.

Second step, by taking part in multilateral forums and multilateral groupings by likeminded countries we can put forward our interests. For example: QUAD is a group of 4 countries i. e India, US, Australia and Japan sharing common interests i. e to curb influence of China in Indian Ocean region. "Necklace of Diamonds" is a counter strategy by India to curb influence of China. By following such strategies, we can ensure our security. Another important issue is that as we are in the digital age we cannot compromise on *digital safety* and robust system against cyber-attacks should be ensured. Finally, cross border terrorism, escalations of tensions between neighboring states like Pakistan and China are major security concerns for India. This kind of tensions among countries will adversely affect the relations especially relating to trade among them and impact the economy of countries. Another least noticed fact is that border areas are most vulnerable. In my opinion a democratic country like India should be militarily strong to tackle any situation at the same time it should be diplomatic in its ways and should resolve issues bilaterally as the situation may demand for.

TO ENJOY THE FRUITS OF DEVELOPMENT SECURITY IS THE PREREQUISITE

VIOLATION ON FUNDAMENTAL RIGHTS

SONU KASTURI
BA II (005201319)



SECTION 211

- False charge of offence made with intent to injure.
- False charges any person with having committed an offence, knowing that there is no just or lawful ground for such proceeding or charge against that person.
- shall be punished with imprisonment of either description for a term. which may extend to two years or with fine or with both.
- If such criminal proceeding be instituted on a false charge of an offence punishable with death, imprisonment for life or imprisonment for seven years, or upwards and shall also be liable to fine.

INTRODUCTION:

- Section 211 speaks about content of charge.
- It has seven parts and illustration.
- Firstly, let's cover the definition of the word charge. It is given under section 2D of CrPC, 1973.
- Charge includes any head of charge, when the charge contains more heads than one. It simply means any number of charge will also be called as charge.
- See, the very purpose of section 211 is to inform. The accused under which he has been charged for what offence he has to visit the court prepare his defense, basically to make him understand that, what mistake has been done by him under the law of land.

SUBSECTIONS OF SECTION 211

Subsection 1 : It says every charge under this code shall state the offence with which the accused is charged. So, the very first thing it is saying we have to name the offence under which the accused has been charged.

Subsection 2 : It says if the law which creates the offence gives it any specific name. The offence may be described in the charge by that name only. If the law specified the offence by a name that name has to be described, this is what it says.

Subsection 3 : It says if the law which creates the offence does not give it any specific name, so much of the definition of the offence must be stated as to give the accused notice of the matter with which he is charged.

Subsection 4 : It says the law and section of the law against which the offence is said to have been committed shall be mentioned in the charge.

Subsection 4 is informing us if the law has defined it we need to mention that law as well.

For Example: If a person has committed some crime then obviously under the criminal procedure code. The punishment defined under IPC had to be mentioned.

Subsection 5: It says the facts that the charge is made is equivalent to a statement. That every legal condition required by law to constitute the offence charged was fulfilled in the particular case.

Subsection 5 says, for better understanding, the nature of the crime committed by the person. The words of the charge have to be done in such a manner, that it should include the fact that legal condition has been fulfilled. This is what it says, so that the person does not take the advantage of the fact. That he could not understand what crime he had committed. If the content of charge is not proper, the accused person can inform the court. That he could not prepare his defense and he might get acquainted just for this mistake.

Subsection 6: It says the charge shall be written in the language of the court. This specifies that the charge is always in a written form it cannot be in oral form.

Subsection 7: It says if the accused having been previously convicted of any offence is liable, to enhance punishment. Till here we understand that the punishment can be enhanced if the accused person has already committed a crime in his past. Further it says, or to punishment of a different kind, means the conviction can be enhanced even if the person had committed another or different kind of crime. Subsection 7 further says for a subsequent offence every offence committed thereafter and it is intended to prove such previous conviction for the purpose of affecting. The punishment which the court may think fit to award for the subsequent offence. The fact, date and place of the previous conviction shall be stated in the charge. Till here we understand that we have to just mention the date and place of his previous conviction (crime) in the charge. The court will automatically enhance his punishment because, the charge shows he is a habitual offender. Subsection 7 further says if such statement has been omitted, The court may add it at any time before sentence is passed. So for whatever any reason may be because, while framing the charges. We were not knowing that he has committed offence in his past as well. The court can add that to the charge at any time. That should be before the passing of sentence. It is very obvious if the sentence has been passed then there is no reason to add it.

CASE STUDY : B.N.Srikantiah Vs State of Mysore AIR , 1958 SC 672.

Provisions relating to charge are aimed at giving full notice to the accused about the offence of which he is charged. It gives the accused accurate and precise information about the accusations made against him. So charge is a very important part when we proceed a case in a court.

ILLUSTRATIONS : A is charged under section 326 of the Indian penal code (1860).

Section 326 : which is voluntarily causing grievous hurt by dangerous weapons or means.

Now the illustration further says with voluntarily causing grievous hurt to B by means of an instrument for shooting. Now this is for layman that because of shooting A has been charged under section 326. Which is grievous hood but, for a law student for an advocate you must know that this is equivalent to a statement. That the case was not provided for by section 335 of the said code and that the general exception did not apply to it.

Section 335 : It is voluntary causing grievous hurt on provocation.

I hope you're getting more knowledge when you read this...

RIGHT TO INFORMATION ACT_2005

Srija, Tejaswi, Srividya, Nikhila

- Right to information is an act of the parliament of India which sets out the rules and procedures regarding citizens.
- It replaces the former freedom of information act, 2002.

OBJECTIVES*

- To empower the citizens.
- To promote transparency and accountability.
- To contain corruption.
- To enhance people's participation in democratic process.

SILENT FEATURES*

- Ask any questions from the government / seek any information.
- Take copies of any government documents.
- Inspect any government documents.
- Inspect any government works.
- Take samples of materials of any government works.

FILLING RTI ONLINE*

1. Visit the RTI website and click on submit request button ,check 'I have read and understood the above guidelines options'
2. You will see the form asking you to fill in the necessary details. Select the department. Fill in your contact details.
3. You can type in the request in about 3000 characters. you can also attach PDF file that doesn't exceed 1MB.
4. Pay the fee 10 rupees by net banking credit / debit card.
5. You will get an acknowledgement with a registration number. once the payment is done it is also possible to make a request email. you can visit the RTI page to check the request of the status.

PROCEDURE TO FILE RTI OFFLINE*

There is a simple procedure to file an RTI request online / offline.

1. We need to first identify the department in which one want to file an RTI request depending on the subject, the request would either come under the scope of local authorities State government or Central government.
2. The application can be written or typed in Hindi English or particular areas local languages we can also refer to the PIO to write the application.
3. Application is to be addressed to the central state PIO. The name and the complete address of this from which one want to seek information is to be mentioned. The subject line should clearly mentioned.
4. Request can be put in with detailed specifications mentioning the year for immediate and we can also request for the documents if it is required.
5. Rupees 10 is paid in the form of cash,Bank draught or a court fee stamp to fill the request.

The stamp needs to be on the application people belonging to the below poverty line

ADVANTAGES OF RTI*

1. Get to know your personal grievances.
2. Improve the situation around yourself.
3. Solve long pending issues of society.
4. You are elected representatives accountable.
5. Make your online social presence relevant and helpful.
6. Make connection with government officers

DISADVANTAGES OF RTI*

1. Lack of public awareness.
2. Unnecessary choos all over.
3. An extra burdens to the authority.
4. Multiple public information officers
5. Peoples accessibility is hectic and hand consuming.

RULES OF RTI*

Information sought concerns the life for liberty of a person, it shall be supplied within 48 hours. In case the application is sent through the assistant public information officer or it is sent to wrong public authorities five days shall be added to the period of 30 days or 48 days.

ASSOCIATED CHALLENGES*

- Misuse of RTI act.
- Low public awareness.
- Huge backlog and delivering disposal of case.
- Issue of enforceability.
- Secrecy.

RECENT ISSUE*

- About Anjali Bhardwaj.
- Anjali Bhardwaj is an Indian social activist working on issues of transparency.
- She is the co-conver of national campaign for people's Right to information and founding member of Satark Nagrik Sangat.

CONCLUSION

- In conclusion the right information act was made to achieve social justice, transparency and to make accountable government but this atc has not achieved its full objectives due to some impediments created due to systematic failures.
- Right to information act as a tool to improve governance process in the hands of state holders.
- Awareness on RTI should be provided and every citizen of India must use the benefits of RTI.

ESSENTIAL COMMODITIES BILL 2020

FIRDOSESANA,
BA II Yr

INTRODUCTION

The 2020-2021 India farmers Protest is an ongoing protest against their farmer acts which were Passed by the parliament of India in September 2020. It is caused by passing three farm bills by Lok Sabha and Rajya Sabha. Farmers unions and their representatives have demanded that laws be repealed and have stated that they will not accept a compromise farmer leaders have welcomed the supreme of court of India stay order on the implementation of the supreme court .farmer leader have also rejected a government proposal dated 21 January 2021 of suspending law for 19 months eleven round of talks have taken place between the central government and farmers represented by the farmer union between 14 October 2020 and 22 January 2021, all were inconclusive. On 3 February farmers leaders warned of escalating the protest overthrowing the government if the farm laws were not repealed. The stay order on implementation of the farm law remains in effect and the supreme court appointed committee continues with it tasks related to the farm laws.

Farmers agreement of price assurance farm service act 2020

- This act seeks to create a legal form work for contract farmers in India where farmers can enter into a direct agreement with a bio to sell the produce at predetermined prices.
- “sponsors” i.e. entities that may per take in an agreement with farmers to buy their agricultural produce may include the individual’s companies, firms and societies.
- the Act also provides for a three-ties dispute resolution system: The conciliation board- comprising representatives of parties to the agreement, the sub divisional magistrate and appellate authority.

ISSUES

The Principal concern with contract farming is regarding the negotiating power of the parties involved. Corporates or rich sponsors may not necessarily pay a fair price to the farmers to produce to the lack of the farmers ability to fairly negotiate or afford any sort of long-standing legal proceeding.

Further, the entire farmers industry will fall into the hands of the capitalists who exploit the land and the farmers for their own private needs, impacting the agro-ecological diversity of the country.

Three Farms Bills

The three bills, now act namely the farmer produce trade and commerce (promotion and facilitation) bill 2020. Farmers (empowerment and protection) agreement of price and assurance farm service bill 2020, and the essential commodities (amendment) bill 2020 are meant to be attract private investors and transform the deplorable state of Indian agriculture.

Farmer's Produce Trade and Commerce Act 2020

- Also known as the APMC by pass act, their act through clause 14, has an overriding power over the inconsistent provisions of the state APMC acts.
- The acts empower the central government to frame rider and regulations under the act.
- According to clause 6, it prohibits the collection of any market fee or cess under the state APMC acts on the trade of farmers produce outside the APMC mandis.

Issues

- The opposition argues that the aforementioned “benefits” under the act would lead to the corporatization of agriculture. Since the act does not mention a fixed MSP, local farmers might not find adequate demand for their produce.
- Most farmers are small land owners and do not have the means to transport their produce to large distances, ultimately, they will be forced to sell their produce in the local market at a price lower than MSP.
- This Act seeks to restrict the power of the government for the production, supply and distribution of certain key commodities by editing and removing certain products such as onions, potatoes, cereals and pulses from the list of essential commodities.
- Stock limits on farming produce to be based on a price rise in the market they may be imposed only if there is

1) A 100 percent increase in the retail price of horticulture produce

2) A 50 percent increase in the retail on non-perishable agriculture food items, moreover the increase is to have calculation over the price prevailing during the preceding twelve months or the average retail price over the last 5 years, which is lower.

ISSUES

The changes in the regulation of stock limits were introduced to harness private sector /foreign direct investment in the agricultural industry. Additionally, the stock limit regulation will not be applicable to value chain participants of agricultural agreements if their stock limits remain within their capacity. Moreover, there would be legitimate loading with the government having no information on the location and ownership of stocks.

CONCLUSION

The farmers are the soul of the nation and their growth and upliftment is the foremost duty to be taken off by the government. The passing of the bills is a step in the right direction providing a bigger platform to the farmers to get the deserved price for their agricultural product. It will bring revolutionary changes in the lives of the farmers. The reforms will accelerate agriculture growth through private sector investment in contracting agriculture infrastructure and supply chains for Indian farm produce in national and global market, generate employment, opportunities and strengthen the economy. The farmers will be freed from the clutches of selling their produce at designated places. The procurement of MSP will continue and “Mandis” established under state laws will also continue to operate. It will empower the farmers and foster their growth and development in the country, reshaping the Indian economy.

UNIQUENESS IN ANIMAL'S

M. DEEPIKA,
BSC BZC III YR.

Abstract

Around us there are different organisms which are having their own characteristics. Some organisms show some special (or) unique features. This article is more about some special features of organisms which belongs to the Kingdom animalia. These organisms have modified themselves and developed unique characters for many reasons. For example to protect themselves from predators, For food etc. Development of special characteristics have helped the organisms for their happy living and also added lots of beauty to them.

Unique features in "Porifera"

Sponges: Sponges have master filters, they can filter an amount of water 100,000 times their size each day that means a basket ball sized sponge could filter an entire resident pool in one day.

Unique features in "Cnidaria"

Corals: Coral reefs are the longest structure on the earth biological origin. Coral reefs are the naturally colourful because of algae, which lines inside of the coral, providing them with food.

Jelly fish : Jelly fish have the ability to emit blue or green light. A no. of different species use bioluminescence permanently for the defense purposes. The light emission is typically activated by touch, which serves to startle predators. Additional bioluminescence is used by jelly fish to warn other organism that a particular area is occupied..

Hydras: The main characteristics of these immortal creatures. The hydras have an amazing power of regeneration and reproduce both sexually and Asexually and are hermaphrodite.

Unique features in "Arthropoda"

Ladybird; Might eat more than 50,000 insects in its life time.

Fruit flies; These were the first living creatures sent to space.

Dragon flies; Have been earth for 300 million years.

Bees; Wings beat 190 times per second that's 11,400 times a minute.

Stag beetle; It is the largest species of the insect to be found in the U. K.

Fruit Flies; Large group of fire flies some time flash in Unison.

Honey bee: Single Honey bee colony can produce around 100KG honey in each year.

Bioluminescence: Bioluminescence is a biological phenomenon in which energy is released by a chemical reaction in the form of cold light emission (**chemiluminescence**). Evolution of bioluminescence has arisen independently as many as 30 times with the five main traits of camouflage, attraction, repulsion, communication and illumination.

Unique features in “Mollusca”

Squid; Most species of the Squid produce **bioluminescence**, using it's for variety of purposes. Some deep see squids excrete a glowing ink to **confuse predators**.

Sea snail: One of the most electric looking creature on this list. The sea snail is one of the species that uses bioluminescence.

Octopus: Octopuses are ocean pi creatures that are most famous for having eight arms and bulbous heads. Some other fun facts: They have three hearts and blue blood; they squirt ink to deter predators; and being boneless, they can squeeze into (or out of) tight spaces. They are quite intelligent and have been observed using tools.

Unique features in “Echinodermata”

Star fish: Star fish are beautiful Marine animals found in variety colors, shapes and sizes. Although starfish lives under water and are commonly called Sea stars also. They are not true fish do. Star fish also move quite differently from fish.

Sea Urchin: They have no detectable eyes, but experts suspect its entire body is a compound eye that is sensitive light.

Vailed Chameleon: Their hands and feet have large toes that help them cling to branches. Besides changing skin colour, chameleons have another feature that no animals have. Their eyes can move independently of each other enabling them look in two different character at once. .

Gopher Tortoise: Gopher tortoise are so named ecosystem Engineers because of their ability to dig large deep burrows, they have specialized shovel like front legs that helps them to dig, and their back legs are strong and sturdy. They use them to accomplish some complex facts of engineering. One Gopher tortoise burrow excavated in Florida Panhandle was recorded at 65 feet long and 25 feet deep.

Hawkbill Turtles: The Hawkbill turtle have been exploited over the countries for their Scutes, known as tortoise shell. Which is perhaps the biggest threat to Hawkbill turtle around the world. In some countries the shell is still used to make hair Ornaments, jewellery and other decorative item's.

FEATURES IN “AVES”:

The Hummingbird; we all know that the hummingbird can fly in reverse. But the most unique special physical characteristics of a hummingbird is it's bill. The shape of the bill is just like your daily Needle. It's a long slandering shape, this help it use it's thin, pointed and long bill to lick up the nectar from flowers and Sapwells. This long bill also good for holding in the long.

The Harpy eagle; It is also called the American Herpy eagle. This bird is the largest and most powerful species of the all reptors found in the world. It is known for the powerful grip around 530 pounds for square inch. It's Talons are big as the claws of grizzly bear. The Herpy eagle loves to feast on monkeys and finishes off it's job by crushing their skulls under it's powerful grips.

The owl bird; The head of the owl can rotate over 270° in any direction. Right in the centre are two large round eyes that helps it observe it's pray not only during the day but

also on a pitch dark night. They have binocular vision that allows them to see anything within a short distance from their own eyes.

The lyrebird; The lyrebird is a ground dwelling Australian bird who is known as for its unconditional ability to mimic sounds it's environment. The bird cannot only sing in its own voice, but can also mimic is not limited for the sounds of their natural surroundings. The lyrebird can copy and produce the sounds of dogs bark, musical instruments and car. This is one unusual character of birds you never have guessed.

The wood Pecker ; The wood Pecker is a bird that is highly specialised machine in the grab of a bird. This Bird can bang it's head all day long against hard, woody trunks and not end up with headache . This unique feature of the wood Pecker help to its survive on each and every continent Except the country of Antarctica.

Ostrich; This bird can run and not just Sprint at a speed of 60KMPH. The only bird that can Out run of an Ostrich is the Cheetah.

Unique features in Mammals

Rhino : White Rhino droppings are unique identifiers, meaning that a rhino can take one whiff of a dung heap and instantly know the animal's age, sex, and reproductive status. According to one study, all the white rhinos in a Particular area head to the same spot to dedicate called Midden, which is essentially communal developing ground.

Beavers: Beavers are generally beneficial to the environment. They are instrumental in creating habits for many aquatic organisms. Maintaining the water table at an appropriate level and controlling flooding and erosion all by building dams.

Beluga whales: Beluga whales are smart and playful and like to spit water at other their whale keepers in aquarium. They are the only whale species that commonly kept in aquarium. Through captive breeding programs haven't been successful.

Flying squirrel: These have an important ecological role especially in forest ecosystems, their biggest contribution to the forest is in shaping plant composition. They have a peculiar habit of taking seeds, which are their source of nutrients.

Vestigial organs

Vestigial organs are anatomical structure that has lost its function in a species during the course of evolution. In man there are nearly 180 different types of vestigial organs. Hence, man is called a moving museum of vestigial organs. There are organs provided evidence for evolution because they suggest that an organism changes from using the structure or using for a different purpose. In future the organs which are in move use will develop more and the organs which are not in use or the one with less use will get degenerated.

Following are the few examples of vestigial organs.

- | | |
|-------------------------|-----------------|
| 1. Sinuses | 5. Appendix |
| 2. Coccyx | 6. Wisdom teeth |
| 3. External ear | 7. Tonsils |
| 4. Nictitating membrane | |

Why are the vestigial structures have lost **their function**?

In the past these vestigial structures had the significant function. But, over time that function became non-existence. The entrance of vestigial organs can be attributed to changes in the environment and the behavior of the organism.

Are they really vestigial?

Instead of vestigial we can use the term insert structures. Because they are not completely useless. In the process of evolution, they became non-functional or they have altered their function.

Functions of vestigial organs Past v/s **Present.**

In the past appendix is comparatively long and it's helped in the digestion of herbivorous food such as the bark of the tree. Ancient human beings were predominantly herbivorous. They used their appendix for digestion. But, now it acts as a store house for good bacteria **"rebooting"** the digestive system after diarrheal illness. The coccyx, a tail bone in the past is meant for the balance and mobility. But, now it is having secondary functions such as attachment site for tendons, ligaments, and muscles. It also functions as an insertion point of some of the muscles of the pelvic floor. In the same way there are many vestigial structures which have changed their actual function.

Role of vestigial organs in Evolution:

Vestigial structures are often homologous to structures that are functioning normally in other species. Therefore, vestigial structures can be considered evidence for evolution, the process by which beneficial heritable traits arise in populations over an extended period of time. The existence of vestigial traits can be attributed to changes in the environment and behavior patterns of the organism in question. Through an examination of these various traits, it is clear that evolution had a hard role in the development of organisms. Every anatomical structure or behavior response has origins in which they were, at one time, useful. As time progressed, the ancient common ancestor organisms did as well. Evolving with time, natural selection played a huge role. More advantageous structures were selected, while others were not. With this expansion, some traits were left to the wayside. As the function of the trait is no longer beneficial for survival, the likelihood that future offspring will inherit the "normal" form of it decreases. In some cases, the structure becomes detrimental. In many cases the structure is of no direct harm, yet all structures require extra energy in terms of development, maintenance, and weight, and are also a risk in terms of disease (e.g., infection, cancer), providing some selective pressure for the removal of parts that do not contribute to an organism's fitness. A structure that is not harmful will take longer to be 'phased out' than one that is. However, some vestigial structures may persist due to limitations in development, such that complete loss of the structure could not occur without major alterations of the organism's developmental pattern, and such alterations would likely produce numerous negative side-effects. The toes of many animals such as horses, which stand on a single toe, are still evident in a vestigial form and may become evident, although rarely, from time to time in individuals. The vestigial versions of the structure can be compared to the original version of the structure in other species in order to

determinethe homology of a vestigial structure. Homologous structures indicate common ancestry with those organisms that have afunctional version of the structure.

Conclusion:

This article gives the information about the positive role of vestigial structures or vestigial organs. As I stated, before vestigial organs are the one which have lost their function or functioning for different purpose. Due to the environment or change in food habits. Humans beings are having many structures/ organs which are not in use or using for different purpose. In the other closely related species their organs/structures are in use. When we start our past food habits then these vestigial organs will function accordinglyit a long process happen.

In the future the organs or structures which we are not using move will become vestigial and the organ which we use are using more will show more growth. In the process of education vestigial organs play a vital role. Vestigial organs are act as the evidence for evolution. There are many vestigial organs which plays different function they are not completelywithout any function. Therefore it is better to call vestigial organs as **Inert** organs or structures.

I never see what has been
done; I only see what remains
to be done.

.....Buddha

PRESERVATION OF SUSTAINABLE DEVELOPMENT GOALS OF THE BLUE ECONOMY

**MOUNIKA,
MPCs Second Year**



Background of the Issues

Oceans cover 75 percent of the Earth's surface and contain 97 percent of the Earth's water. The United Nations estimates over three billion people depend on marine and coastal biodiversity for their livelihoods and marine fisheries directly or indirectly employ over 200 million people.¹ Ocean utilization itself can be called as Blue Economy. According to the World Bank, Blue Economy is sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health. Blue economy activities consist of fisheries, maritime transport, tourism, climate change, waste management, and renewable energy.²

The Commonwealth estimates the worldwide ocean economy is valued at around US\$1.5 trillion per year.³ Due to the high value offered by the ocean, its utilization becomes excessive and causes problems such as overfishing, climate change, unfair trade, and others. Technological improvements coupled with poorly managed access to fish stocks and rising demand have resulted in overfishing. The Food and Agriculture Organization estimates that approximately 52 percent of fish stocks are fully exploited and another 30 percent are over-exploited, depleted, or recovering.⁴ Furthermore, the global average sea level has risen 19 cm and made the oceans expand due to warming and ice melted from 1901 to 2010.⁵

The United Nations has recognized that careful management of the ocean is a key feature of a sustainable future in our Goal 14 in 2030 Sustainable Development Goals. Although the international goal upheld the importance of a sustainable Blue Economy, the application itself was hard to be applied due to the country's national interest and different conditions. Beside that, since 40 years ago, United Nations Environment Programme has made a programme namely Regional Seas Programme which supports the regions to fulfill their responsibilities towards the priorities identified in relevant UN Environment Governing Council Decisions and United Nations Environment Assembly resolutions, to contribute to achieving global targets such as the Sustainable Development Goals (SDGs).⁶ Most of the Regional Seas Programmes function through action plans, one of them is the Regional Program for the Comprehensive Management of Marine Litter in the Southeast Pacific.⁷ Although we could not stop ocean utilization to achieve our SDGs, Lao PDR believes we still can achieve it by doing waste management and using renewable energy.

Past Action and Country Stances

According to the World Bank, 80 percent of litter in the ocean came from land.⁸ In 2020, Lao PDR tried to deal with waste management in Vientiane. With help from the United Nations Development Programme, Lao PDR figured out actors involved in waste management and gaps which cause waste management not working in Vientiane.⁹

Furthermore, Lao PDR as an ASEAN member joined in preparing ASEAN Regional Action Plan for Combating Marine Debris in the ASEAN Member States (2021-2025) which was developed through extensive consultations with representatives from ASEAN, regional technical experts and the private sector.¹⁰

Energy is the dominant contributor to climate change. It accounts for around 60 percent of total global greenhouse gas emissions.¹¹ In the past 20 years, Lao PDR has focused on developing hydropower. In its development, Lao PDR is assisted by other countries¹² and the International Finance Corporation¹³. Beside that, Lao PDR as part of the Paris Agreement, contributed by submitting its Nationally Determined Contribution (NDC) and in its implementation Lao PDR assisted by Global Green Growth Institute.¹⁴

Possible Solution

With the aforementioned stances and action already taken, Lao PDR would like to reiterate our commitment to preservation our SDGs by proposes the following:

1. **Encourage Developed Countries to Help Developing Countries in Doing Waste Management:** In developing countries, especially the urban poor, are more severely impacted by unsustainably managed waste. The World Bank estimates over 90 percent of waste is often disposed of in unregulated dumps or openly burned in low-income countries.¹⁵ According to this data, Lao PDR would like to encourage developed countries to share information about integrated systems that are efficient, policy measures and coordinated institutions for the coordinated waste management sector, and attract citizens to waste reduction, source-separation and reuse.
2. **Encourage Cooperation between Neighboring Countries to Develop Sustainable Blue Economy by Using Renewable Energy:** Many developing countries face difficulties in studying and developing their potential renewable energy. Lao PDR wants to encourage countries to contribute to their neighboring countries that are still experiencing obstacles. It could be sharing information, partnerships between researchers, technology transfer, investing, or even funding. Lao PDR suggests neighboring countries due to they usually have environmental conditions which are not much different.
3. **Encourage Collaboration in Creating International Financial Aid to Fund Small Island Countries and Developing Countries:** To develop potential blue economy and to resolve the bad impact of the blue economy, several countries, especially Small Island Developing States (SIDS) are facing difficulty due to small populations, limited resources, vulnerability to natural disasters and external shocks. Lao PDR would like to encourage developed countries and international financial institutions to give contributions by funding or investing.

LIFE

SINDHU,
BSc. BZC III Year

I was jogging this morning and I noticed a person about half a km ahead. I could guess he was running a little slower than me and that made me feel good, I said to myself I will try to catch up with him. So I started running faster and faster. Every block, I was gaining on him a little bit. After just a few minutes I was only about 100 feet behind him, so I really picked up the pace and pushed myself. I was determined to catch up with him. Finally, I did it! I caught up and passed him. Inwardly I felt very good. I beat him Of course; he didn't even know we were racing. After I passed him, I realized I had been so focused on competing against him thatI had missed my turn at my house. I had missed the focus on my inner peace. I missed seeing the beauty of greenery around I missed doing my inner soul-searching meditation and in a needless hurry stumbled and slipped twice or thrice and might have hit the sidewalk and broken a limb. It then dawned on me, isn't that what happens in life when we focus on competing with co-workers, neighbours, friends, family, trying to outdo them or trying to prove that we are more successful or more important and, in the bargain, Do we miss on our happiness within our own surroundings? We spend our time and energy running after them and We miss out on our own paths to our given destination. The problem with unhealthy competition is that it's a never-ending cycle.

There will always be somebody ahead of you, someone with a better job, nicer car, more money in the bank, more education, a prettier wife, a more handsome husband, better-behaved children, better circumstances, and better conditions, etc. But one important realization is that You can be the best that you can be when you are not competing with anyone. Some people are insecure because they pay too much attention to what others are, where others are going, wearing and driving, what others are talking. Take whatever you have, the height, the weight, and personality. Accept it and realize, that you are blessed. Stay focused and live a healthy life. There is no competition in Destiny. Each has his own. Comparison and Competition is the thief of JOY. It kills the Joy of Living your Own Life. Run your own Race that leads to Peaceful, Happy Steady Life.

FRIENDSHIP

K.YOGITHA,
B.Sc (BZC) III rd Year

Friendship is a sapling in the soil of understanding. It grows imperceptibly and constantly gaining its sap and strength from thoughtful gestures and warm sympathy. It has its seasons. It goes through its seasons. It goes through its autumns, its winters, of harsh attitudes or callous indifference it may shed its withered leaves. But the thick branches of mutual attraction and the strong trunk of love remain unaffected its autumns and winters are followed by blossoming springs and summers, thus gaining its glory and beauty in spite of seasonal ravages and vicissitudes. In the end it attains its full glory in the strongest and most divine human bond called love. Its pace of growth should be jealously and zealously watched. Even if it goes hand in hand it should warmly reciprocated angry complaints show its strength and plausible excuses show its cracks when old friendship starts fraying like old clothes do not keep mending it. It will never stand the strain of wear. It frays because either one party or both have found a better and a more congenial companionship. Friendship should be hourly wished and not nursed.

IMPORTANT MEDICAL NUMBERS IN THE LIFE OF EVERY HUMAN BEING

E. KEERTHANA,
BSC. BZC IIyr.

1. Blood pressure: 120 / 80
2. Pulse: 70 - 100
3. Temperature: 36.8 - 37
4. Respiration: 12-16
5. Hemoglobin: Males (13.50-18)
Females (11.50 - 16)
6. Cholesterol: 130 - 200
7. Potassium: 3.50 - 5
8. Sodium: 135 - 145
9. Triglycerides: 220
10. The amount of blood in the body: 5-6 liters
11. Sugar: For children (70-130)
Adults: 70 - 115
12. Iron: 8-15 mg
13. White blood cells: 4000 - 11000
14. Platelets: 150,000 - 400,000
15. Red blood cells: 4.50 - 6 million.
16. Calcium: 8.6 - 10.3 mg/dL
17. Vitamin D3: 20 - 50 ng/ml (nanograms per millilitre)
18. Vitamin B12: 200 - 900 pg/ml

**A. DEVI PRASANNA,
I YEAR**

Tips for those who have reached Over:

the 40

the 50

the 60

And above

May God bless you with obedience, health, and wellness.

First tip: You have to do cupping every year, even if you do not feel sick or have any illness.

? (What is cupping? Cupping is an ancient healing therapy that some people use to ease the pain. A provider places cups on your back, stomach, arms, legs, or other parts of your body. Inside the cup, a vacuum or suction force pulls the skin upward.

Cupping is a form of traditional Chinese and Middle Eastern medicine. People have practiced cupping therapy for thousands of years.)

Second tip: Always drink water even if you don't feel thirsty or need it... the biggest health problems and most of them are from the lack of water in the body.

Tip Three: Play sports even when you are at the top of your preoccupation...the body must be moved, even if only by walking...or swimming...or any kind of sports.

Fourth tip Reduce food...

Leave excessive food cravings...because it never brings good. Don't deprive yourself, but reduce the quantities.

Fifth tip: As much as possible, do not use the car unless absolutely necessary...Try to reach on your feet for what you want (grocery, visiting someone...) or any goal.

Sixth tip

Let go of anger...

Let go of anger...

Let go of anger...

Let go of worry....try to overlook things...

Do not involve yourself in situations of disturbance... they all diminish health and take away the splendour of the soul. Choose a babysitter you feel comfortable with▪

Seventh tip: As it is said. leave your money in the sun and sit in the shade. don't limit yourself and those around you. money was made to live by it, not to live for it.

Eighth tip: Don't make yourself feel sorry for anyone,

Nor on something, you could not achieve,

Nor anything that you could not own.

Ignore it, forget it;

Ninth tip: Humility. then humility. for money, prestige, power, and influence. are all things that are corrupted by arrogance and arrogance.

Humility is what brings people closer to you with love.

Tenth tip: If your hair turns grey, this does not mean the end of life. It is proof that a better life has begun. Optimistic, live with remembrance, travel, enjoy yourself.

((The last and most important advice))

Have faith-- wish you all good health and happiness always...

D. RAMYA,
BSC. BZC IIyr.

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CH. MOUNIKA,
BSc. BZC., IIIrd Year

YOUNG & OLD

When YOUNG,

I was WORRIED about MY PIMPLES.

When I am OLD,
I am WORRIED about MY WRINKLES.
When I was YOUNG,
I was WAITING to HOLD HER HAND.
When OLD,
I am WAITING for SOMEONE to HOLD MY HAND.
When YOUNG,
I wanted my parents to leave me alone
When I AM OLD
I am worried to be left alone
When I was YOUNG,
I HATED being ADVISED.
When OLD,
there is NO ONE around to TALK or ADVISE.
When YOUNG,
I ADMIRER BEAUTIFUL THINGS.
When I am OLD,
I see BEAUTY in THINGS around ME.
When I was YOUNG,
I felt I was ETERNAL.
When I am OLD,
I know SOON it will be MY TURN.
When I was YOUNG,
I CELEBRATED the MOMENTS.
When I am OLD,
I am CHERISHING MY MEMORIES.
When I was YOUNG,
I found it DIFFICULT to WAKE UP.
When OLD,
I find it DIFFICULT to SLEEP.
When I was YOUNG,
I WANTED to be a HEART-THROB.
When OLD,
I am WORRIED when will MY HEART STOP.
At EXTREME STAGES of OUR LIFE,
WE WORRY but WE DON'T REALIZE,
LIFE NEEDS to BE EXPERIENCED.

It DOESN'T MATTER whether YOUNG or OLD. LIFE needs to be LIVED and LIVED WITH LOVE & LOVED ONES. You are surely one of these.

* * * * *

"□ □ □ □ □ □ □ □"

PRIYANKA,
B.Sc. BZC, II YEAR

[illegible]

* * * * *

HOME REMEDY

SINDHU,
B.Sc. BZC, IIIyr

Camphor, lavang, ajwain, few drops of eucalyptus oil. Make potli and keep smelling it throughout the day and night. Helps increase oxygen levels and congestion.

This potli is also given to tourists in Ladakh when oxygen levels are low. Many ambulances are now keeping these too.

MUCUS REDUCING FOODS

MONIKA,
B.Sc. BZC, IIIYr

It may seem like there's not an awful lot left to eat after the long list of mucus-forming foods. But that's far from the truth. In fact, there are many foods that actually act as mucus cleansers.

Fruits & vegetables

Onion

Garlic

Ginger

Pumpkin

Celery

Radishes

Pickles

Grapefruit

Leafy greens and herbs

Parsley

Watercress

Teas & spices

Cayenne pepper

Turmeric

Rose hips tea

Chamomile tea

ARAVINDA KANDIRAJU,
BSC BZC II Year

Don't be excited for our success,
Don't be sad on your failure,
Don't be proud on your works
Don't be attached to your relationships,
Do and show love to everyone in this living world!
But don't show any type of special interest on anyone,
as the end of the day,
your love,
your relations,
your affections,
your beloved husband or wife,
your beloved children,
your beloved reputation,
your beloved property,
will not come with you.
Everything vanishes,
In fraction of seconds,
One last heart beat lub-dub.



K. SANDHYA,
B.Sc (MPCs) Final Year

- [illegible]

NIKITHA & MONIKA,
B.Sc (MPCs) Second Year

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ANUSHA & MONIKA,
B.Sc (MPCs) Second Year

SUMALATHA & MONIKA,
B.Sc (MPCs) Second Year

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The virtue of patience
The obligation of duty
The joy of originality
The influence of example
The beauty of cheerfulness
The excitement of creativity

O POWERFUL GIRL

**PRIYANKA, B.Sc(BZC) &
MONIKA, B.Sc (MPCs) Second Year**

Stand up girl and walk another mile,
For you are strong and not fragile.
Have your say when people dismay,
They will have opinions, keep them at bay.
A friendly nudge or a was it a bad touch,
Be ruthless to thrash those who judge.
O powerful Girl, break that lock,
Your Character isn't decided by the ticking clock.
Your wardrobe is your own choice,
Shut them up who make a noise.
The time has come, to rule the throne,
The orthodox mindset will be mourned.

SHE IS A WOMAN

**SOUMYA, B.Sc. (MZC) &
MONIKA, B.Sc (MPCs) Second Year**

She is a woman
Who knows how to fly high,
Try to pull her down
She will still rise without a second cry.
She is a woman
She creates her own destiny
Don't kill her dreams and passion
Because her dreams lie beyond infinity.
She is a woman,
She knows how to be brave
Learn to respect her
As a humans, that's all we crave.
She is a woman
who fights her obstacles like a warrior
No wonder why God chose her
To play the role of a life carrier.
She is a woman,
Five days a month she bleeds
Don't make fun of her
Because she is also the one who feeds.
She is a woman,
Determined, driven and powerful
She may have some flaws
But her flaws are what make her more beautiful.
She is a woman,
With patience and determination she strives
With so many issues troubling her
It's amazing how she still survives.
She is a woman
Who has nothing but love to pour?
Don't try to confine her in a small kitchen
She has a universe to explore.
She is a woman,
Respect her is the key to her heart
She wants nothing but your love After all,
She is nothing but God's best piece of art.

GLOBAL PANDEMIC – CAUSED PANIC

D. SUCHARITHA,
B.Sc. Microbiology (Final year)

A paused moment where people were struck and life continuation was a mystery, all they could do was to gather hope and pray for the miracle to happen. Nonetheless those hopes were all in vain. Wonder what was that which made life hopeless – ‘A Revenge from me’ – chanted nature. A Bio war which vanishes people – the global pandemic Corona Virus {Covid – 19}.



Have you ever thought,

‘Covid alert tone would be caller tune.’

‘Money would be thrown on roads claiming it is futile.’

‘Corpses would be thrown as if they were Garbage.’

‘Graveyards ran out of space.’

‘Denial in performing last rites of loves ones.’

‘Hand shake would cause hazard.’

‘Self-lockdown would be best escape.’

Inspite of all flaws it has the best comes from the worst is worth believing. The best realizations were burst out as it is indeed needed for the survival.

Selfishness is Gulpd by caring others as they cared themselves. Greediness was drained out because they realized money does not save them from death. They understood family as final destination rather than a virtual relationship. World without pollution stopped ozone hole depletion. Finally, they grasped the fact that ‘Fear of Nature is must otherwise we turn into dust’; the solution is ‘Humanity & Unity overcomes calamity.’

Reflecting upon things makes clear about the disaster we brought upon ourselves. Due to anthropogenic activities cycle of nature is interrupted leading to great damage of environment which in turn effected on mankind as “Every action which has an equivalent opposite reaction”. Covid-19 can be called as “Short accident “which rescued us from facing long time destruction. “What a wonderful gift we create for future generations if we indulge efforts to make nature bring back its beauty”. How great it would be when human and nature live together in Harmony.

* * * * *

WIZARDRY OF INVISIBLES IN INDUSTRY

ENTHALA USHARANI,
B.Sc. Microbiology (Final Year)



YOU NEVER WALK ALONE

Microorganisms are always with you which never makes you feel alone.

Microorganisms are ‘omnipresent’. They have the ability to bare both hyper and hypo conditions of this amazing environment. The study of these microorganisms is included in wonderful subject microbiology.

INDUSTRIAL MICROBIOLOGY is a branch of applied microbiology in which microorganisms are used in industrial processes.

Father of Industrial Microbiology is ‘PASTEUR’. Around 1860, ‘Pasteur’ discovered the major role of YEAST in food & beverage industries. And considered as father of modern microbiology. Generally, industrial microbiology is the field of science which uses microorganisms for various purposes like food preservation, wastewater treatment, bio-polymers etc. it is linked to industry & deals with “screening, improvement, management & exploitation” of microbes for production. It is useful for production of end products on a “large scale”.

The main focus of industrial microbiologist is the use of different microorganisms such as “Naturally occurring organisms”, Laboratory selected mutants or even “Genetically modified organisms” to produce a very large variety of industrial products for human interest.

The main criteria for using microbes in large scale industrial processes is they are crucial for the production of variety of “metabolites”. Such as Ethanol, Butanol etc., and as well as the “transformation of chemicals” that help to reduce environmental pollution. Industrial microbiology uses microbes even to degenerate contaminants of industry and other toxins into energy source.

Some products of industrial microbiology.

- Production of high-value products such as drugs, chemicals, fuels & electricity., Organic acids, enzymes, antibiotics and vitamins, etc.
- ‘Yeast’ widely used for the production of beverages.
- ‘Aspergillus niger’ (fungus) produces citric acid.
- ‘Saccharomyces cerevisiae’ (Yeast) produces ethanol.
- Microbes are also used for production of ‘enzymes.’ Such as ‘Lipases used in detergents’, ‘Bottled juices with pectinases, proteases.
- Streptokinase produced by ‘Streptococcus’ used as a ‘clot buster’ for patients leading to heart attack.
- Cyclosporin – A by ‘Tricoderma Polysporum’ used as immune suppressive agent.
- So, we can say that industrial microbiology includes the use of microorganisms to manufacture food & industrial products in ‘large quantities’ by production of variety of metabolites as well as the transformation of chemicals that help to reduce environmental pollution.

* * * * *

INDUSTRIAL MICROBIOLOGY IS LIKE ACTINOMYCETES, IMPORTANT FOR MAN & NATURE.

SOWMYA SRI PAKA,
B.Sc. Microbiology (Final year)



QUALITY FOOD, QUALITY LIFE

The actual wealth of every living being lies in their health. Quality of food which we intake, is a matter of concern for our good health. Food poisoning is the ever rising issue globally. The highest rate of food poisoning is in European countries. The Centre for Disease Control (CDC), states that 48 million cases of food poisoning are reported every year globally, of which 1,28,000 hospitalizations and 3,000 deaths. Is that a lot or little? Well, it depends on how we look at it.

Food poisoning is a reaction to the contaminated food or water during improper cooking, handling or storage; usually affects the gastrointestinal tract causing abdominal cramps, vomiting and diarrhoea (or) it may effect kidney, brain, muscles also. Commonly contaminants include bacteria, viruses, parasites and toxins. Undercooked meat, eggs unpasteurized milk, cheese, raw or unwashed fruits and vegetables are most commonly associated with food poisoning. Cockroaches, rats, flies act as vectors of disease. Usually food poisoning resolves within few days if detected and proper care is taken at early stage. If fever, blood in stool, dehydration persist for more than couple of days, then the individual must seek medical care immediately.

Hospitalization due to food poisoning are mostly caused by nor virus, salmonella, clostridium perfringens, campylo bacter, staphylococcus aureus, E. Coli, Listeria. Nor virus and Campylobacter can cause death.

Is every individual prone to food poisoning? Probably No. Infants, older, immuno-compromised and people with serious medical conditions are highly prone to food poisoning.

“Prevention is better than cure”. Adequate hydration helps us in resolving the problem effectively and most cases resolve on their own.

We have to follow certain measures to prevent food poisoning:

1. Food should be cooked thoroughly, especially raw food.
2. Wash the fruits and vegetables with salt water before consumption.
3. Wash hands before and after handling food
4. Cleaning of knives and utensils thoroughly.
5. Avoid taking left over food for more than one day.
6. Avoid cross-contamination of food items while storing.
7. Always ensure to follow **four C's - Clean, Cook, Cover, Chill**.
8. While purchasing packed foods pay attention to “Best before “date on labels.

Good food handling practices are the most important aspects of food hygiene and it helps to prevent the chances of food poison. One cannot think well, sleep well and concentrate on his work well. If he has not dined well. So, let's switch to quality food and enjoy.

* * * * *

IMMUNIZATION

A. LALITHA,
BSC MBC II Yr

Be protected against disease by vaccination.

- Immunity is described as the ability of the body to recognize, neutralize or destroy harmful foreign substances in our body.
- In normal language immunity is term as host defense system.

EDWARD JENNER [1749] Father of Immunology.

- He was an English physician and scientist who pioneered the concept of vaccines including creating the smallpox vaccine, the world's first vaccine.
- The origin of small pox as a natural disease is lost in prehistory. It is believed to have appeared around 10,000 BC in North East Africa i.e., spread from there to India by means of merchants.
- Edward Jenner demonstrated the effectiveness of cowpox to protect humans from smallpox
- After various attempts were made to eliminate small pox.
- He had heard that dairy maids were protected from small pox naturally after having suffered from cowpox.
- In May 1796, he found a young dairy maid, who had fresh cowpox lesions on her hands, he inoculated that to an 8 years old boy.
- Subsequently, the boy developed immune to the small pox after 10 days.
- Again he inoculated the boy with fresh small pox lesion. But no disease was developed.

Thus, vaccine was developed.

Vaccine is a substance used to stimulate the production of antibodies and provide immunity against one or several diseases.

Vaccine for Covid – 19:

- India is currently facing the second wave of the Covid – 19 pandemic.
- In India there are Eight Covid vaccines.
- The available vaccines at present to public are “Covishield” and “Covaxin”.
- Sputnik” will available by next week.

The other vaccine candidates which are in different stages of trails in India to test safety are.

- Zycov-Di, being developed by Ahmedabad – based on Zydus-cadila.
- Hyderabad – based Biological E to produce the vaccine developed by US firm Johnson & Johnson.
- HGCO19, India's 1st mRNA vaccine made by Pune – based Genova.

- A nasal vaccine by Bharat Biotech.
- Novavax is undergoing 2/3 trials in India.

Rule watch for Vaccine:

- Those who test Positive for Covid – 19 should not go for vaccination for 3 months after recovery.
- Those who have received the 1st dose of vaccine & test positive before the second dose should wait for 4 – 8 weeks after recovery.
- Those with any serious illness requiring hospitalization care should also wait for 4 – 8 weeks before the next vaccine.
- Vaccine is recommended for all lactation women, but no decision yet for pregnant women.
- Covid – 19 patients who have been given monoclonal Antibodies can defer vaccination for 3-months from the day they are out of hospital

Just as a candle cannot burn
without fire, men cannot live
without a spiritual life.

.....Buddha

IMPLEMENTATION OF FOREST RIGHTS ACT IN TELANGANA- A STUDY OF TADVAI MANDAL

**T.CHANDANA
B.ARTHIKA**

We the students B.A.Public Administration, Pingle Government College for Women (T.Chandana, B.Arthika, M.Sneha, Sharmila, Srilaxmi, Alekhya under the supervision of Dr D.Ramakrishna Reddy, Asst.Professor of Public Administration) have visited tribal villages of Tadvai mandal to do research project on implementation of forest rights act.

Forest Rights act has given several rights to the forest dwellers like Land Rights in which Ownership to land is provided to the tribes or forest dwellers subject to a maximum of 4 hectares. The law provides for rights to use and/or collect Minor forest produce other than timber things like tendu patta, herbs, medicinal plants etc that has been traditionally collected, Grazing grounds and water bodies, Traditional areas of use by nomadic or pastoralist communities. And for the first time, this law has given the community the right to protect and manage the forest.

But Poor implementation of Individual Forest Rights with high rates of rejection, ignoring the rights of PVTGs (primitive vulnerable tribal groups), with illegal evictions by forest department are major obstacle are major issues in the implementation of the act.

There has been a lot of confusion among the forest officials, state governments, NGOs and the tribes regarding this act. There have been numerous complaints regarding the manner in which the Act is being implemented after its notification. All of the key features of this legislation have been undermined by a combination of apathy and sabotage during the process of implementation. With all these conditions even after 12 years of this act the fruits of it are far away to the targeted group. As we all know that if administration fails it is not because of bad laws, but because of bad implementation. At this juncture being the students of Public Administration we made an attempt to assess the implementation of this act in Telangana particularly in the selected area.

Objectives of the study

- To study the key issues of the act along with the loopholes in implementation
- To understand whether the tribal are aware of the act
- To analyse whether this act leads to afforestation or deforestation
- To offer suitable suggestions after identifying the key bottlenecks and problems in the implementation of the Act.

Collect the data from forest dwellers, forest officials and the NGOs by using convenient sampling method as the tribal and the forest dwellers scatter all over the forest it is not physically possible to contact all of them. The methodology and tools employed are those of survey research. The study mainly depends on primary sources including non participant observation, informal discussions with tribal people, and forest officials working in that area. Other methods adopted are secondary data available with

the Integrated Tribal Development Agencies (ITDAs) and the Forest Department in the form of published documents like books, reports, research articles and news paper items.

As part of our research we have visited tribal villages of Tadvai mandal and tried to collect data from them regarding the implementation of forest rights act. The results that we discussed here are based on few specific questions that were asked on FRA. Field survey was conducted in 10 tribal villages from Tadvai forest division. Results presented here are based on household surveys conducted in the sample villages. These are mainly the issues of implementation. Majority respondent's i.e. 86% of respondents expressed that they were not informed of the act. Only 3% of respondents expressed that FRA committees are formed in their villages. Only 13 % of the respondents applied for individual forest rights, remaining are unaware of the process of applying. It is very interesting to note that only 5% of the respondents opinioned that cutting of trees is not good. They feel that these forests are not grown by the human beings, they are the creation of god, if we cut them again they will grow as usual, so there is no mistake in cutting them.

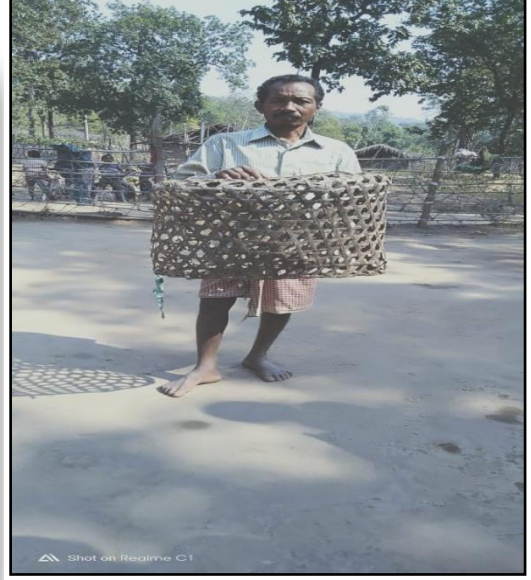
The importance of the Gram Sabha has been undermined, the local government officials have disrupted protocol and due process to be followed in the implementation of the Act, The government has made little effort to disseminate information about the application and approval process. Many applicants faced problems in filling the form. A Gram Sabha is supposed to be held for forming the forest right committee. However, the Thehesildars sitting in their offices and forming a committee with names of the heads of the habitats. Some people are not even aware that they are part of the committee. The lack of coordination among different officials of revenue, tribal affairs and the forest departments, is showing its impact heavily on the functioning of FRA.

Policies and programs, though indicative of government's intentions, are not sufficient to bring in the intended change unless its implementation is carefully monitored. It is necessary to recognize the fact that forest is a renewable resource and that it can supply forest products perpetually if planned accordingly. One need not continue to concentrate on protection and conservation alone. A major prerequisite for meaningful decentralization and devolution is to build levels of trust between foresters and communities, as well as within the communities, for building local capacities. The Forest Rights Act, as it stands now, is like a tiger without teeth. The act gives authority to the communities to own and manage a resource, but they are not aware of it. Devolution of authority and ownership in its true sense would only come after comprehensive knowledge of the provisions of the act and building of capacity to put the provisions into practice.

After doing research on this topic we tried to make suggestions to implement the act in a proper way. Some of these are strengthening the Gram Sabha to take control of implementation to protect the rights of the tribes and other forest-dwelling communities. Massive publicity to ensure that people receive information related to Salient provisions of the Act, Organizing a campaign for issuing caste certificates in tribal-dominated areas so that larger numbers of poor tribes can avail of the benefits extended under the FRA, providing forest maps and The penal provision in the FRA to penalize the officials who

interfere with the enjoyment of recognized rights of community or individuals under FRA must be introduced.

Finally we are very happy to share that we received state level third prize from honourable commissioner Sri Navin mittal garu in Jignasa student study project and more over we gained lot of experience while travelling in forest tribal villages experiencing their miserable conditions.



గొత్తికోయల జీవన విధానంపై అధ్యయనం

గోవిందరావుపేట, న్యూనీటండే: పాఠ్యశాలలోని పింగళి ప్రభుత్వ మహిళా డిగ్రీ కళాశాలకు చెందిన ప్రభుత్వ పాలనాశాస్త్రం అధ్యాపకుడు డి.రామకృష్ణారెడ్డి అధ్యక్షులలో పలువురు విద్యార్థులు కినివారం గోవిందరావుపేట, తాడ్యాయి మండలాల్లోని గొత్తికోయల శీవన విధానంపై అధ్యయనం చేశారు. ప్రాజెక్టునగర్ ఆటవీ ప్రాంతంలో గొత్తికోయలు నివసిస్తున్న ప్రాంతంలో ఆటవీ హక్కుల చట్టం అమలు జరుగుతున్న తీరుతెన్నులపై పరిశీలన చేశారు. పప్రొ సమీపంలోని చేపనిగుట్టపై నివసిస్తున్న గొత్తికోయలను కలిసి మాట్లాడారు. తాడ్యాయి మండలంలోని జలగలంప ఆటవీ ప్రాంతంలో నివసిస్తున్న గొత్తికోయలతో పింగళి కళాశాల విద్యార్థులు

లతో మాట్లాడి వారి ఆధార వ్యవహారాలు, శీవన విధానాన్ని తెలుసుకొన్నారు. తార్కమంలో విద్యార్థులు డి.చందన, డి.హర్షిత, ఎం.సీహ, శ్రీలక్ష్మి, అలేఖ్య తదితరులు పాల్గొన్నారు.