

## **DEPARTMENT OF MATHEMATICS**

**e-mail ID: [deptmathsgdchzb@gmail.com](mailto:deptmathsgdchzb@gmail.com)**

### **BRIEF HISTORY OF THE DEPARTMENT:**

The Department of Mathematics Government Degree College, Huzurabad was established in the Academic year 1998-99 with introduction of B.Sc. (MPC) course in T/M with an intake of 30 students.

The department is currently headed by D. Swarupa Rani, who took this position in 2019-20. She has 11 years of teaching experience in mathematics..

The academic schedule is prepared as per the almanac of Satavahana University and regular activities of the department such as Teaching Diary, synopsis and Attendance registers are maintained regularly. These are monitored and verified by the coordinator, IQAC and the Principal and the in-charge of the department.

### **ABOUT THE DEPARTMENT**

The Department maintains a tradition of excellence in teaching at undergraduate level. Faculty of the department participates in research in the active and exciting areas of mathematics. The Mathematics Department is committed to continuous improvement in the quality of education by enhancement of the knowledge of students. The department presents a unique opportunity to study the exciting field with the guidance of a well-qualified and experienced teacher.

### **VISION AND MISSION**

#### **Vision:**

- Popularize the subject among the students

#### **Mission**

Lay strong foundation of the subject in the students leading to further higher studies and research

- Simplification of the subject by the faculty in the form of simplified notes and easy to understand lectures.
- Conducting programmes like certificate courses and symposia, giving clarity of Mathematics phenomena
- Inculcating interest in the subject among the students by involving them in research activities.

## FACILITIES

- The department has a separate Departmental Library with 30 reference and text books.

### NAMES OF THE PROGRAMMES/ COURSES OFFERED (AT PRESENT) 2020-21

The Mathematics department offers the following UG courses.

1. Mathematics-Physics-Chemistry --- EM
2. Mathematics -Physics-Computer Science --- EM

### C.B.C.S. PROGRAMMES: COURSES (Semester Wise) from 2016-17

1. Mathematics -Chemistry- Comp Science --- EM
2. Mathematics -Physics-Chemistry --- TM

### C.B.C.S. PROGRAMMES: COURSES (Semester Wise) from 2017-18

1. Mathematics -Physics-Chemistry --- TM
2. Mathematics -Chemistry -Comp Science --- EM

### C.B.C.S. PROGRAMMES : COURSES (Semester Wise) from 2018-19

1. Mathematics -Physics-Chemistry --- TM
2. Mathematics -Chemistry -Comp Science --- EM

### C.B.C.S. PROGRAMMES : COURSES (Semester Wise) from 2019-20

1. Mathematics -Physics-Chemistry --- EM
2. Mathematics -Physics-Computer Science --- EM

### C.B.C.S. PROGRAMMES : COURSES (Semester Wise) from 2020-21

1. Mathematics -Physics-Chemistry --- EM
2. Mathematics -Physics-Computer Science --- EM

### C.B.C.S. PROGRAMMES : COURSES (Semester Wise) from 2021-22

1. Mathematics -Physics-Chemistry --- EM
2. Mathematics -Physics-Computer Science --- EM

S.N O	No. of Teaching Posts Sanctioned	Filled – in	Vacant	On OD Basis
1	1	1	0	0


## LIST OF FACULTY DETAILS

S. No	Name of the faculty	Qualification	D.O.B	University	Experience	Email	Phone no.
1	D. Venkanna	M.Sc, B.Ed; NET	05-02-1974	OU	24	dvenkanna74@gmail.com	8317561122
2	Saleha Tabbassum	M.Sc	15-04-1989	NIT	07	Syedasaleha333@gmail.com	9100648874
3	D.Swarupa Rani	M.Sc,B.Ed	27-08-1978	KU	11	swaroopachidru@gmail.com	9000740965

### INDIVIDUAL PROFILE

Name : D. Venkanna  
Designation : Asst. Professor in Mathematics  
Department : Mathematics  
Date of Birth : 05-02-1974  
Qualification : M.Sc,B.Ed,NET

## INDIVIDUAL PROFILE

<b>Name in Full</b> : SWARUPA RANIDASARI	
<b>Designation</b> : LECTURER IN MATHEMATICS	
<b>Father's name</b> : SUDHAKAR	
<b>Mother's name</b> : BHAGYALAXMI	
<b>Date of Birth</b> : 27-08-1978	
<b>Qualifications</b> : M.Sc.(MATHEMATICS), B.Ed.	
<b>Teaching Experience</b> : 11 YEARS (UG),	
<b>Training Programmes Attended :</b> 1. ONE DAY WORKSHOP IN REAL ANALYSIS AND LINEAR ALGEBRA, 2. ONE DAY WORKSHOP ON N-LIST E-RESOURCES AND ITS USAGE IN HIGHER EDUCATIONAL INSTITUTIONS	
JIGNAS PROJECT: Supervised state level student study project in mathematical physics in the academic year 2017-18	
<b>Member: 1. Women Empowerment Cell</b>	
<b>E-mail</b> : swaroopachidru@gmail.com	<b>Contact No.</b> : 9000740965
<b>Residential Address:</b> H.No. : 10-1-270 , Bhagyanagar, Karimnagar	

## DECLARATION

I declare that the particulars furnished above are true to the best of my knowledge and belief. I am liable for the authenticity of each and every bit of this information and indemnify the college administration that I take full responsibility in this regard.

**Signature:**  
**D.SWARUPA RANI**

## SYLLABUS

S.No	Semester	Paper
1	I	Differential & Integral calculus
2	II	Differential Equations
3	III	Real Analysis
4	IV	Algebra
5	V	Linear Algebra
6	VI	Numerical Analysis

### STRENGTH PARTICULARS:

Academic Year	Total no.of students
2016-17	15
2017-18	15
2018-19	14
2019-20	9
2020-21	14

### Details of e –content

S. No	Name of the Lecturer	PPT	Lectures uploaded on YouTube
1	D SWARUPA RANI	0	30

## ICT RECORD

S.NO	CLASS	TOPIC	YOUTUBE VIDEO LINK
1	II	Groups	<a href="https://www.youtube.com/watch?v=gaYhwgqYi3sB">https://www.youtube.com/watch?v=gaYhwgqYi3sB</a>
2	I	Equations solvable for y	<a href="https://www.youtube.com/watch?v=exTbgHaZk4s">https://www.youtube.com/watch?v=exTbgHaZk4s</a>
3	III	Surface integral	<a href="https://www.youtube.com/watch?v=NSWxzATsgBg">https://www.youtube.com/watch?v=NSWxzATsgBg</a>
4	I	Higher order L.D.E	<a href="https://www.youtube.com/watch?v=Ea7iKQ-hd8c">https://www.youtube.com/watch?v=Ea7iKQ-hd8c</a>
5	II	Exercise problems	<a href="https://www.youtube.com/watch?v=Ea7iKQ-hd8c">https://www.youtube.com/watch?v=Ea7iKQ-hd8c</a>
6	III	Line integral	<a href="https://www.youtube.com/watch?v=clDehha_EFg">https://www.youtube.com/watch?v=clDehha_EFg</a>
7	I	Equations solvable for p	<a href="https://www.youtube.com/watch?v=J02K2C8R7ew">https://www.youtube.com/watch?v=J02K2C8R7ew</a>
8	I	Method of multipliers	<a href="https://www.youtube.com/watch?v=Tai1fuqEe5I">https://www.youtube.com/watch?v=Tai1fuqEe5I</a>
9	II	Subgroups-theorems	<a href="https://www.youtube.com/watch?v=uZ7J58S5pTE">https://www.youtube.com/watch?v=uZ7J58S5pTE</a>
10	II	Subgroups	<a href="https://www.youtube.com/watch?v=KLxUXenjLsg">https://www.youtube.com/watch?v=KLxUXenjLsg</a>
11	II	Definition of group	<a href="https://www.youtube.com/watch?v=z9qD7Xbc7i0">https://www.youtube.com/watch?v=z9qD7Xbc7i0</a>
12	II	Theorems on groups	<a href="https://www.youtube.com/watch?v=gWCWE7n3Xhc">https://www.youtube.com/watch?v=gWCWE7n3Xhc</a>
13	II	Groups	<a href="https://www.youtube.com/watch?v=2Dkqy0iHuwI">https://www.youtube.com/watch?v=2Dkqy0iHuwI</a>
14	III	Solenoidal and irrotational vector	<a href="https://www.youtube.com/watch?v=PCnzjDI1nJY">https://www.youtube.com/watch?v=PCnzjDI1nJY</a>
15	III	Divergence and curl	<a href="https://www.youtube.com/watch?v=aoKVc--8S8o">https://www.youtube.com/watch?v=aoKVc--8S8o</a>
16	III	Exercise problems on divergence & curl	<a href="https://www.youtube.com/watch?v=l_eG0Vw9w_Q">https://www.youtube.com/watch?v=l_eG0Vw9w_Q</a>
17	I	I.F of a homogeneous equation	<a href="https://www.youtube.com/watch?v=7kfgvTBv_f0">https://www.youtube.com/watch?v=7kfgvTBv_f0</a>
18	I	Integrating factors	<a href="https://www.youtube.com/watch?v=pHoQwTH7mfM">https://www.youtube.com/watch?v=pHoQwTH7mfM</a>
19	I	Exact differential equations	<a href="https://www.youtube.com/watch?v=MB5G2nrHmbA">https://www.youtube.com/watch?v=MB5G2nrHmbA</a>
20	III	Unit normal vector	<a href="https://www.youtube.com/watch?v=RQbr1QKNh8c">https://www.youtube.com/watch?v=RQbr1QKNh8c</a>
21	III	Exercise problems on D.D	<a href="https://www.youtube.com/watch?v=dj9z8uNupz4">https://www.youtube.com/watch?v=dj9z8uNupz4</a>
22	I	Differential equations reducible to linear form	<a href="https://www.youtube.com/watch?v=-ppbyt_aAgw">https://www.youtube.com/watch?v=-ppbyt_aAgw</a>
23	I	Exercise problems on L.D.E	<a href="https://www.youtube.com/watch?v=tlxEbyNyWGY">https://www.youtube.com/watch?v=tlxEbyNyWGY</a>
24	I	Linear differential equations	<a href="https://www.youtube.com/watch?v=X5JAejs91fQ">https://www.youtube.com/watch?v=X5JAejs91fQ</a>
25	III	Directional derivative	<a href="https://www.youtube.com/watch?v=cat7FcZY9J0">https://www.youtube.com/watch?v=cat7FcZY9J0</a>
26	I	Exercise problems on partial differentiation	<a href="https://www.youtube.com/watch?v=bpSf_6kQcWM">https://www.youtube.com/watch?v=bpSf_6kQcWM</a>
27	I	Partial differentiation	<a href="https://www.youtube.com/watch?v=DEUHCj2rqUo">https://www.youtube.com/watch?v=DEUHCj2rqUo</a>
28	III	Gradient of a function	<a href="https://www.youtube.com/watch?v=JaO40j3sGC0">https://www.youtube.com/watch?v=JaO40j3sGC0</a>
29	I	Equations in which variables are separable	<a href="https://www.youtube.com/watch?v=xn9tpBeyDzU">https://www.youtube.com/watch?v=xn9tpBeyDzU</a>
30	I	Differential equations	<a href="https://www.youtube.com/watch?v=ERQH4Vfwiw4">https://www.youtube.com/watch?v=ERQH4Vfwiw4</a>

**STUDENT'S CASTE-WISE DETAILS:**

2020-21											
COURSE	SC		ST		BC		OTHERS		TOTAL		TOTAL
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	
M.P.Cs - I	4				2	1					7
M P C - I						1					1
M P Cs- II		1			1	2					4
MPC-III	1						1				2

2019- 20											
COURSE	SC		ST		BC		OTHERS		TOTAL		TOTAL
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	
M P Cs – I (EM)		1			1	2					4
M P C- II	1						2				3
M P C -III					2						2

2018- 19											
COURSE	SC		ST		BC		OTHERS		TOTAL		TOTAL
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	
M.P.C – I(EM)	1				1				2		3
M P C- II					2						2
M P C -III	1				1	1					3
M C Cs - III	1	2		1		1		1	1	5	6

2017 -18											
COURSE	SC		ST		BC		OTHERS		TOTAL		TOTAL
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	
M.P.C. – I(E/M)				-	2		-	-	2		2
M.P.C.-II E/M	1				1	1					3
M.P.C. III T/M	3					1					4
M C Cs II E/M	1	2		1		1		1	1	5	6

2016- 17											
COURSE	SC		ST		BC		OTHERS		TOTAL		TOTAL
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	
M.P.C - I T/M	1				1	1					3
M.P.C. – II(T/M)	3					1					4
M.P.C. – I(E/M)		1				2					3
M C Cs - I(E/M)	1	2		1		1		1	1	5	6



**TIME-TABLE FOR THE ACADEMIC YEAR:****GOVERNMENT DEGREE COLLEGE, HUZURABAD. DIST: KARIMNAGAR****Department of mathematics****Time table for academic year 2019-20**

<b>HOUR/ DAY</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>LUNCH</b>	<b>IV</b>	<b>V</b>	<b>VI</b>
<b>MON</b>	MPC III	MPCs I	MPCs I		MPC II		
<b>TUE</b>	MPC III	MPCs I	MPCs I		MPC II	MPC III PRA	MPC III PRA
<b>WED</b>	MPC III	MPC II	MPCs I				
<b>THU</b>	MPC III		MPCs I		MPC II	MPC II PRA	MPC II PRA
<b>FRI</b>	MPC III	MPC III	MPC III PRA		MPC III PRA		
<b>SAT</b>	MPC III	MPC III					

I/c Department of Mathematics

Principal

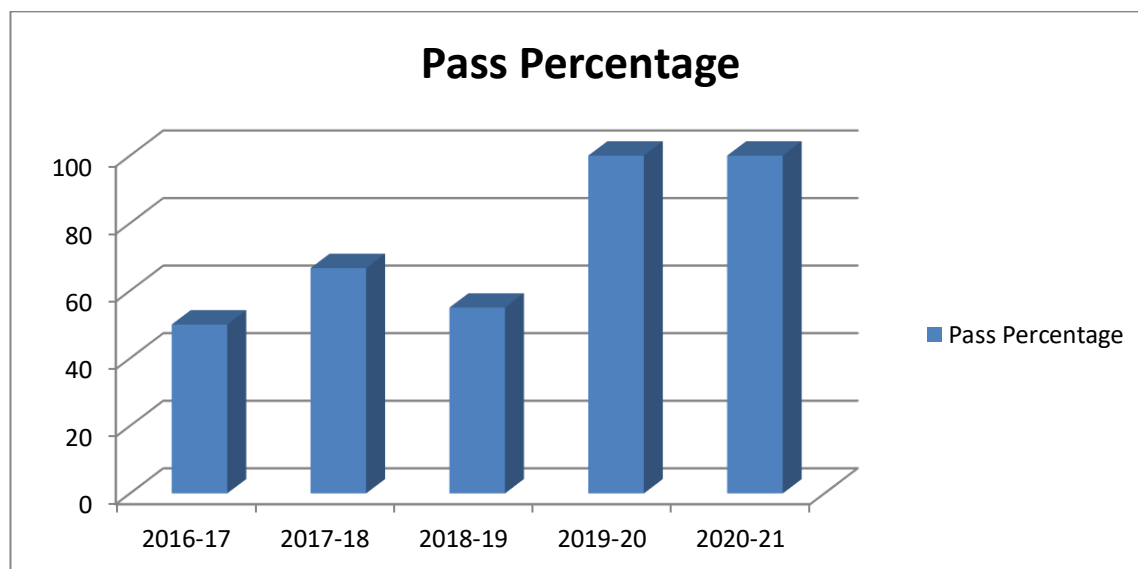
**TIME-TABLE FOR THE ACADEMIC YEAR:****GOVERNMENT DEGREE COLLEGE, HUZURABAD. DIST: KARIMNAGAR****Department of mathematics****Time table for academic year 2020-21**

<b>HOUR DAY</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>LUNCH</b>	<b>IV</b>	<b>V</b>	<b>VI</b>
<b>MON</b>	MPC III		MPC, MPCs I			MPC III PRA	MPC III PRA
<b>TUE</b>	MPC III		MPC, MPCs I		MPCs II	MPC III PRA	MPC III PRA
<b>WED</b>	MPC III		MPC, MPCs I		MPCs II		
<b>THU</b>	MPC III		MPC, MPCs I		MPCs II	MPCs II	
<b>FRI</b>	MPC III		MPC, MPCs I		MPCs II	MPC, MPCs I	
<b>SAT</b>	MPC III		MPCs II				

Department of mathematics - GDC, Huzurabad

## ACADEMIC RESULTS IN THE SUBJECT: 2016-17 to 2020-21

Academic Year	Pass Percentage
2016-17	50
2017-18	66.7
2018-19	55
2019-20	100
2020-21	100



## LIST O F STUDY PROJECTS

S.NO	ACADEMIC YEAR	NAME OF THE STUDENT	CLASS	TOPIC
1	2016-17	M.Mounika	B.Sc MPC-I	Differentiation& its application
2	2017-18	Ch.Kavya	B.Sc MPC-III	Numerical methods for solving partial differentiation
3	2018-19	G.Shiva prasad	B.Sc MPC-II	History of Fibonacci
4	2019-20	M. Ashwini	B.Sc MPCs-I	History of pythagorus theorem
5	2020-21	G.Jyothi	B.Sc MPCs-I	History of Aryabhata
6	2021-22	N. Rakesh	B.Sc MPCs-II	Relevance of Ramanujan at the dawn of the new millenium

## STUDENTS SEMINARS: 2016-17 TO 2021-22.

S.No	Name of the student	Class	Topic
1	M.Praveen	B.Sc MPC-I	Straight Lines
2	J.Anil	B.Sc MPC-I	Differential equations
3	A.Manoj	B.Sc MPC-I	Differential equations of 1st order but not of 1st degree
4	M.Bikshapathi	B.Sc MPC-I	Differential equations of 1st order and 1st degree
5	G.Shiva Prasad	B.Sc MPC-II	Groups
6	A.Manoj	B.Sc MPC-II	Sequences
7	M.Ashwini	B.Sc MPCs-I	Differential equations
8	G.Shiva Prasad	B.Sc MPC-III	Cones
9	G.Jyothi	B.Sc MPCs-I	Partial Differentiation
10	D,Ramya	B.Sc MPCs-II	Cauchys mean value theorem
11	R.Archana	B.Sc MPCs-I	Taylor's theorem
12	S.Divya	B.Sc MPCs-I	Method of multipliers
13	M.Bhaskar	B.Sc MPCs-I	Partial Differentiation
14	M.Ashwini	B.Sc MPCs-III	Bessels interpolation formula
15	D.Ramya	B.Sc MPCs-III	Eigen values & Eigen vectors

## **FUTURE PERSPECTIVES**

1. To encourage more number of students to get PG seats in IITs, NITs and central and state universities.
2. To conduct National level Workshops/Seminars.
3. Plan to submit more research proposal to funding agencies like UGC, etc.
4. To increase strength by canvassing
5. Plan to strengthen the Alumni association of the department.
6. Encouraging students to use ICT tools.

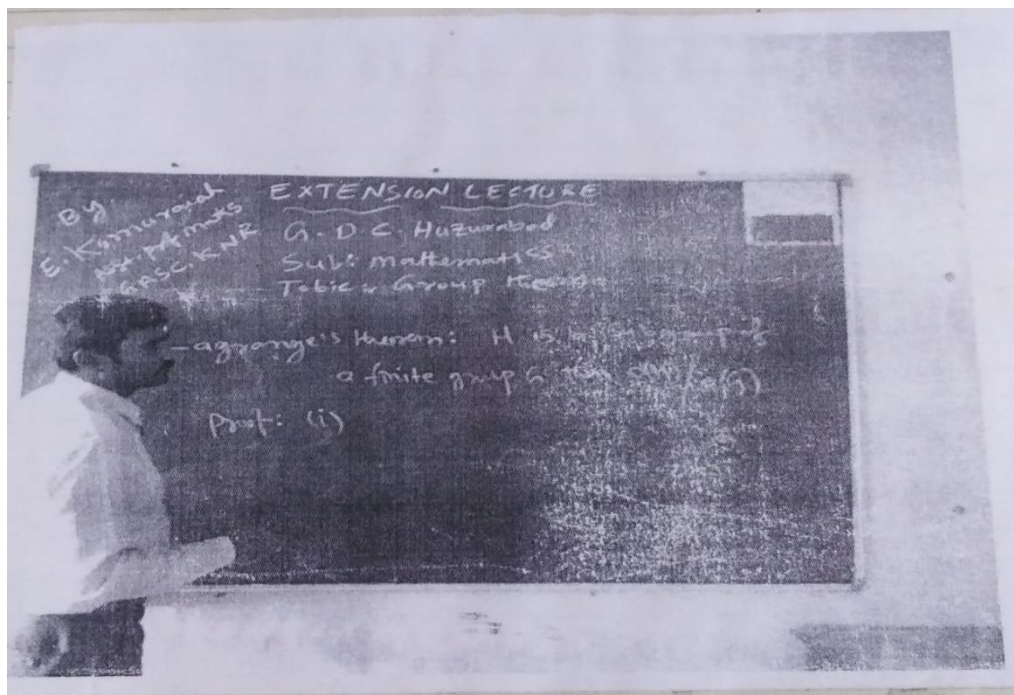
# WOMENS DAY CELEBRATIONS



8<sup>th</sup> MARCH

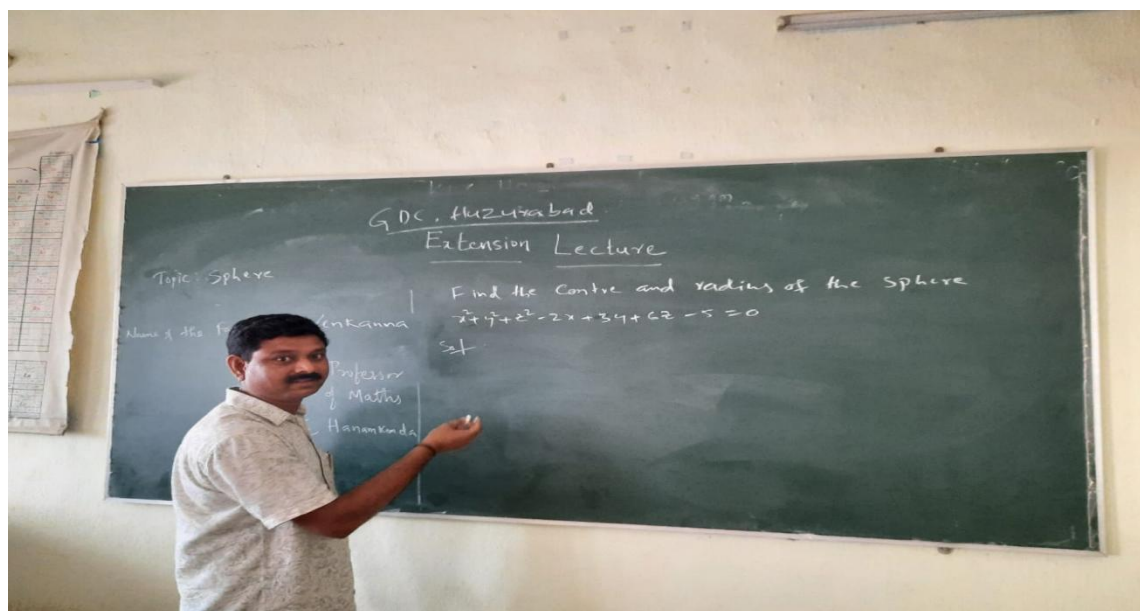


# EXTENSION LECTURES



**E. Komuraiah**

Asst. prof. of mathematics, GDC Narsampet



**D. Venkanna**

Asst. prof. of mathematics, KDC Warangal

## ADMISSION DRIVE



To increase the strength by canvassing



# MATHEMATICS DAY CELEBRATIONS (22<sup>nd</sup> December)



# STUDENT SEMINARS



Name : S.Divya

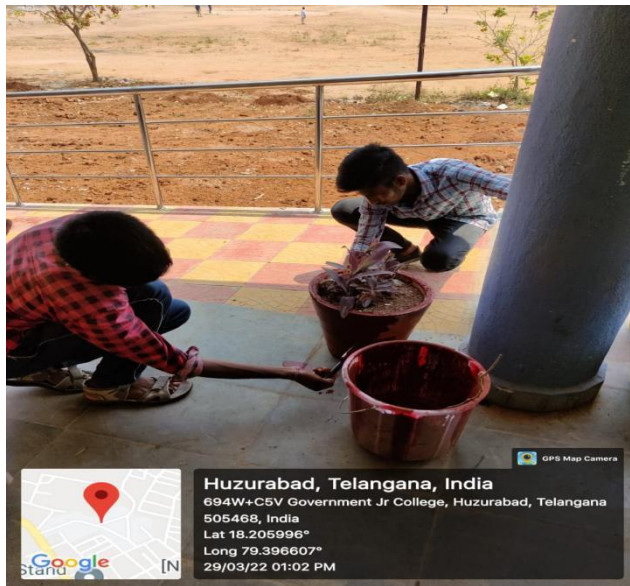
Topic: Method of multipliers



Name : R.Archana

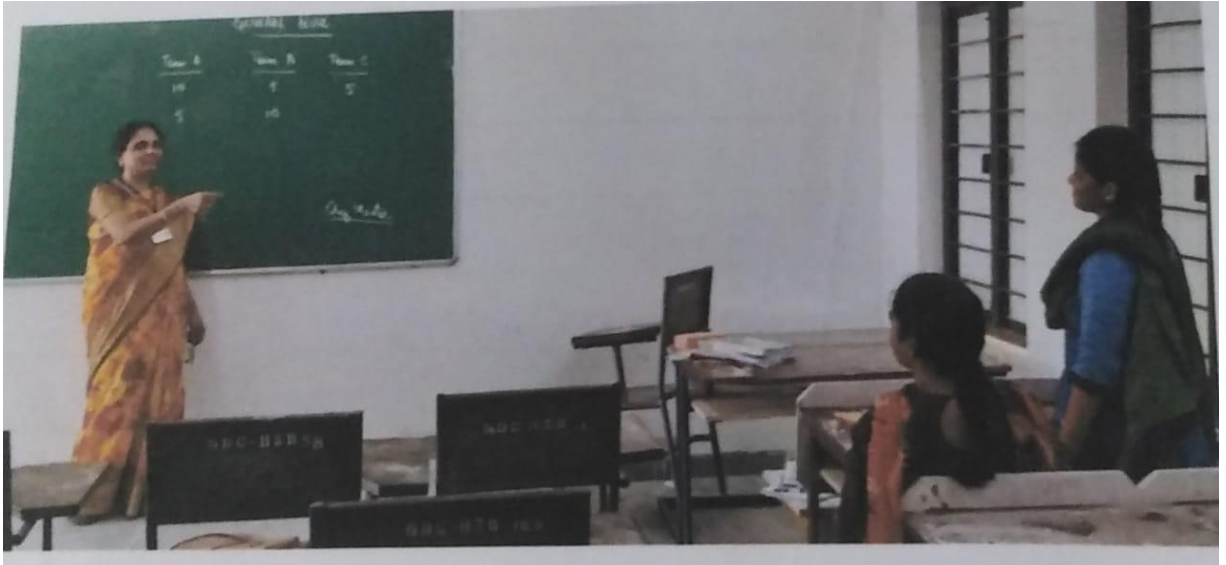
Topic :Integrating factors

# STUDENT PARTICIPATION IN EXTENSION ACTIVITIES



# QUIZ COMPETITION

Topic : General science



Topic : Differential Equations

