



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105

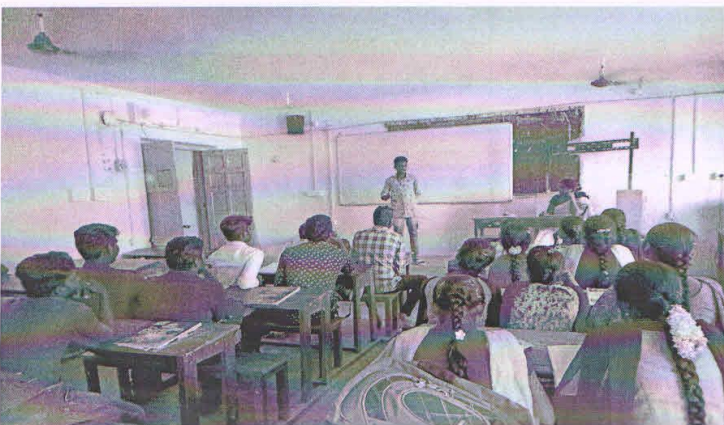
[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



STUDENT SEMINAR

The department of Physics conducted Student Seminars for B.Sc. students. This student centric activity is helpful to improve the teaching skills among the students. This also develops the Communication skills of the students.



Sem-V



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105. ☎ 08598 - 223546

NAAC Accredited B*

2007-08

ACADEMIC ACTIVITY - SEMINAR

CLASS : III GROUP : Bse (MPC, MPCs) DATE : 29/8/19 HOUR : 4-5 pm
 SUBJECT : paper - V PAPER : TIME : 15 min.

Sr. No.	Roll No.	Name of the Student	Seminar Topic	Signature of the Student
1.	10	SK. mubeena (MPC)		SK. mubeena
2.	05	K. Vamsi (MPCs)		K. Vamsi
3.	19.	md. Salma (MPC)		md. Salma Baw.
4.	14.	SK. Imam Vali		SK. Imam Vali

No. of Students Present : 13

Signature of the Lecturer

Sr. No.	Roll No.	Name of the Student	Signature of the Student
1.	04	A. Divya	A. Divya
2.	20	V. Kalavathi	V. Kalavathi
3.	07	P. Keerthi	P. Keerthi
4.	06	SK. Mubjani	SK. Mubjani
5.	10	G. Sharon Rajan	Sharon Rajan. G
6.	13.	B. Gopi	B. Gopi
7.	4	J. Sasikumar	J. Sasikumar

V-m2

- 8. 15 k. Sai Ram K. Sai Ram
- 9. 08 G. Siva G. Siva
- 10. 01 J. Hari babu (MPC) J. Hari babu

- 11. sujay (MPC) sujay
- 12. 3 A. Si va nagarejwal. A. Si va nagarejwal.

- 13. 17 p. Siddulu. p. Siddulu.
- 14.

Sl. No.	Name of the Student	Roll No.	Grade
1.	A. Bindu	04	1
2.	V. Kalavathi	05	2
3.	P. Keerthi	07	3
4.	S. Nagesh	08	4
5.	G. Sharan Raju	01	5
6.	P. Gopi	15	6
7.	I. Sarikumar	14	7

TRR. GOVT. DEGREE. COLLEGE.

— KANDUKUR.

PHYSICS PAPER-V, SEM-III.

STUDENT SEMINAR.

NAME OF THE STUDENT : SHAIK. MUBEENA.

ROLL NO : 08.

GROUP : III BSc [MPC]

SEMINAR TOPICS : Electric potential and Potential due to a charged spherical sphere.

SUBMITTED TO :

D. Vijaya Sri Madam.

SUBMITTED BY :

Sk. Mubeena.

* Electric Potential :-

"The work done by an external agent in carrying a unit +ve charge from x to that point against the electric force of the field."

$$\text{Electric potential (V)} = \frac{W}{q_0} \text{ volts}$$

or

"The ratio of work done in taking a test charge from one point to another point in an electric field to the magnitude of the test charge is defined as the electric potential difference between these points."

$$V_A = V_B = \frac{W}{q_0}$$



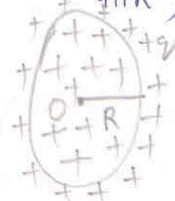
* Potential due to a charged spherical sphere :

Consider a uniformly charged sphere of radius R as shown in fig, then the surface charge density (ρ) is given as

$$\rho = \frac{q}{4\pi R^2} \quad (\because \text{charge } (q) = \text{Area} \times \text{charge density } (\rho))$$

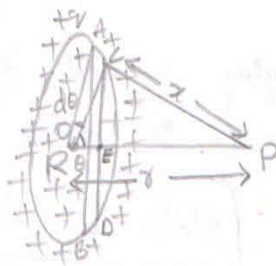
$$q = 4\pi R^2 \times \rho$$

$$\Rightarrow \rho = \frac{q}{4\pi R^2}$$



Case (i): Electric potential due to charged sphere at a point outside the sphere.

To calculate the potential at a point P, which is at a distance r from the origin O, we divide the sphere into no. of rings with centres on OP.



Consider one such ring ABCD, whose radius is CE and thickness AC.

From fig, $CP = x$, $\angle COP = \theta$, $\angle AOC = d\theta$ \rightarrow (1)

From Δ COE, $\sin \theta = \frac{CE}{OC} = \frac{CE}{R} \Rightarrow CE = R \sin \theta$

\therefore Radius of the ring = $CE = R \sin \theta$ \rightarrow (2)

From Δ AOC, $\sin d\theta = \frac{AC}{OC} = \frac{AC}{R} \Rightarrow AC = R \sin d\theta$

As $d\theta$ is small, $\sin d\theta \approx d\theta$, $AC = R d\theta$

\therefore Thickness of the ring = $AC = R d\theta$ \rightarrow (3)

\therefore The circumference of the ring = $2\pi(CE) = 2\pi R \sin \theta$ \rightarrow (4)

\therefore Area of the ring = Circumference of the ring \times thickness

$$= 2\pi R \sin \theta \times R d\theta$$

$$= 2\pi R^2 \sin \theta d\theta \rightarrow$$
 (5)

\therefore Charge on the ring = $dq = \text{area of the ring} \times \text{surface density}$

$$= 2\pi R^2 \sin \theta d\theta \times \rho$$

$$= 2\pi R^2 \sin \theta d\theta \times \frac{q}{4\pi R^2}$$

Just a Minute (JAM)

The Department of Physics conducted JAM for B.Sc. students. This student centric activity is helpful to improve thinking skills among the students within a short time. This activity develops the orative skills of the student.



JUST A MINUTE (JAM)-ISEM students



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

20 19-2020

ACADEMIC ACTIVITY - JAM

CLASS : I GROUP : Bsc. (MPC, MPes) DATE : 21/6/19 HOUR : 4-5 pm

SUBJECT : "About You & Your Goal" PAPER : - TIME : 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1			
2			
3			
4			

All students participated

No of Students Present :

All students participated.

Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	<u>22 (mpes)</u>	<u>B. Deepthi</u>	<u>B. Deepthi</u>
2	<u>01</u>	<u>M.D. Afreen</u>	<u>M.D. Afreen</u>
3	<u>05</u>	<u>M. Lavanya</u>	<u>M. Lavanya</u>
4	<u>09</u>	<u>K. Padma</u>	<u>K. Padma</u>
5	<u>14</u>	<u>A. Oliva</u>	<u>A. Oliva</u>
6	<u>07</u>	<u>M. Mrudula</u>	<u>M. Mrudula</u>
7	<u>13</u>	<u>E. Kaveri</u>	<u>E. Kaveri</u>
8	<u>17</u>	<u>P. Yamuna</u>	<u>P. Yamuna</u>
9	<u>21</u>	<u>M. Sravya</u>	<u>M. Sravya</u>
10	<u>04</u>	<u>K. Hari Krishna</u>	<u>K. Hari Krishna</u>
11	<u>02</u>	<u>A. Sai</u>	<u>A. Sai</u>
12	<u>18</u>	<u>M. Paveen</u>	<u>M. Paveen</u>
13	<u>02</u>	<u>Y.V. Hemanth</u>	<u>Y.V. Hemanth</u>
14	<u>06</u>	<u>T. Anthoni</u>	<u>T. Anthoni</u>
15	<u>04</u>	<u>SK. Rahaman</u>	<u>SK. Rahaman</u>

S.No.	Roll No.	Name of the Student	Signature of the Student
17	90	G. SSSac	G. SSSac
18	16	H. ragendra baba	H. ragendra baba
19	05	P. mahendra baba	P. mahendra baba
20	6	N. narasimha	N. Narasimha
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

20 - 20

ACADEMIC ACTIVITY - JAM.

CLASS : I GROUP : Bsc. (MPC, MPes) DATE : 22/1/20 HOUR : 4-5pm

SUBJECT : PAPER : TIME : 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1			
2			
3			
4			

All Students participated

No of Students Present :

Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	22	B. Deepthi	B. Deepthi
2	01	M.D. Afreen	M.D. Afreen
3	09	K. padma	K. padma
4	05	M. Lavanya	M. Lavanya
5	14	A. Oliva	A. Oliva
6	07	M. Mridula	M. Mridula
7	13	E. kaveri	E. kaveri
8	17	P. Yamuna	P. Yamuna
9	21	M. Sravya	M. Sravya
10	04	K. Hari Prishna	K. Hari Prishna
11	18	M. Naveen	M. Naveen
12	08	V. Viswendra	V. Viswendra
13	02	Y.V. Hemanth	Y.V. Hemanth
14	06	T. anthoni	T. anthoni
15	04	Ek. Rahman	Ek. Rahman

S.No.	Roll No.	Name of the Student	Signature of the Student
17	05	S.k Sandani	S.k Sandani
18	20	J. Essae	J. Essae
19	16	M. Nagendra Babu	M. Nagendra Babu
20	6	N. Nara Simha	N. Nara Simha
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			

Group Discussion

The Department of Physics organized group discussions as student centric activity to inculcate the scientific temper among the students for BSc students.



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

20 - 20

ACADEMIC ACTIVITY - GROUP DISCUSSION

CLASS : I GROUP : Bsc (MPE, MPC) DATE : 13/8/19 HOUR : 4-5 pm

This is to certify that the following students have participated in Group Discussion on the topics

1) Group A 2) Group B in the subject.....

Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	04	K. Hari Krishna	K. Hari Krishna
2	02	A. Sai	A. Sai
3	18	M. Nareen	M. Nareen
4	09	Y.v. Hemanth	Y.v. Hemanth
5	04	SK. Rahaman	SK. Rahaman
6	06	T. eduthoni	T. eduthoni
7	21	M. Sravya	M. Sravya
8	17	P. Yamuna	P. Yamuna
9	09	K. Padma	K. Padma
10	22	B. Deepthi	B. Deepthi
11	01	M.D. Ahsreen	M.D. Ahsreen
12	05	M. kavanya	M. kavanya
13	14	A. Oliva	A. Oliva
14	07	M. Mrudala	M. Mrudala
15	13	E. Kaveri	E. Kaveri
16	02	G.H. Gayathri	G.H. Gayathri
17	03	Y. Manjatha	Y. Manjatha
18	19	K. Lakshmi prasanna	K. Lakshmi prasanna
19			



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

20 - 20

ACADEMIC ACTIVITY - GROUP DISCUSSION

CLASS : III GROUP : Bsc (MPC, MPCs) DATE : 22/8/19 HOUR : 4-5 pm

This is to certify that the following students have participated in Group Discussion on the topics

1) Group A 2) Group B in the subject.....

Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	20	v. Kalavathi III B.sc (MPC)	v. Kalavathi
2	04	A. Divya III B.sc (MPC)	A. Divya
3	07	P. Keerthi III B.sc (MPC)	P. Keerthi
4	10	Sharon Raja III B.sc (MPC)	G. Sharon Raja
5	19	Md. Salma Banu III B.sc (MPC)	Md. Salma Banu
6	13	B. Gopi	B. Gopi
7	16	T. Govind	T. Govind
8	2	G. Madhu Babu	G. Madhu Babu
9	14	Sk. Immanalli	Sk. Immanalli
10	4	SESIKUMAR	Sesikumar
11	5	K. Vamsi	K. Vamsi
12	3	A. Siva Nagaraju	A. Siva Nagaraju
13	17	P. Siddhu	P. Siddhu
14	1	K. Hari Babu	K. Hari Babu
15	08	G. Siva	G. Siva
16		J. Nani	J. Nani
17	15	Sai remm. K	K. Sai remm
18		Sujay	Sujay
19	2	Ch. Kalpana	Ch. Kalpana

QUIZ

The Department of Physics conducts quiz programme as a part of student centric activity. It develops critical thinking as well as general awareness.



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

20 - 20

ACADEMIC ACTIVITY -

Quiz

CLASS : III GROUP : Bse (MPC, MPC) DATE : 17/7/19 HOUR : 4-5 pm.
 SUBJECT : General Physics/science PAPER : _____ TIME : 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1	Group-A		
2	Group-B		
3	Group C		
4	Group D.		

No of Students Present :

Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	19	Md. Salma Banu	md. Salma Banu
2	04	A. Divya	A. Divya
3	04	P. Keerthi	P. Keerthi
4	06	Sk. Mubjani	Sk. Mubjani
5	08	J. Nemi	Jem
6	10	G. Sharon Raja	G. Sharon Raja
7	13	B. Gopi	
8	08	G. Siva	Siva. G
9	08	Sk. Mubeena	Sk. Mubeena
10	01	Hari babu. k	sk. Hari babu
11	08	K. Namasi	k. Nami
12	5	Ch. Kalpan	Ch. Kalpan
13	6	Sk. Firoz	sk. firoz
14	9	Sasikumar	Sasikumar
15	11	Sk. Immanuel	Sk. Immanuel
16	0		



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.: 08598-223546

NAAC ACCREDITED B+

2019-2020

ACADEMIC ACTIVITY - QUIZ PROGRAMME

CLASS: JU B-SC GROUP: MPC & MPCs DATE: 09-01-20 HOUR: 3

This is to certify that the following students have participated in ^{Quiz} Group Discussion on the topics

1) 2) in the subject PHYSICS


Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	MPC-01	K. Harith Babu	K. Harith Babu
2	MPC-03	A. SIVA NAGARAJU	A. Siva Nagaraju
3	MPC-14	A. RAMESH BABU	A. Ramesh Babu
4	MPCS-11	J. Sujay	J. Sujay
5	MPC-18	O. RAVINDRA	O. Ravindra
6	MPC-17	P. Siddaiah	P. Siddaiah
7	MPCS-03	B. Jayaraju	B. Jayaraju
8	MPCS-06	N. Venkata Swami	N. Venkata Swami
9	MPCS-14	SK. Imamavali	SK. Imamavali
10	MPCS-01	B. AJAY BABU	B. Ajay Babu
11	MPCS-05	K. VAMSE	K. Vamse
12	MPCS-02	G. Madhu Babu	G. Madhu Babu
13	MPCS-08	G. Siva	G. Siva
14	MPC-13	B. GOPI	B. Gopate
15	MPC-05	SK. PIRAZ	SK. PIRAZ
16	MPC-02	CH. KACHAN	Ch. Kachan
17	MPCS-04	J. Sasi Kumar	J. Sasi Kumar

- | | | | |
|-----|---------|----------------|----------------|
| 20. | MPC-10 | G. SHARON ROJA | G. Sharon |
| 21. | MPC-20 | V. KALAVATHI | V. Kalavathi |
| 22. | MPC-07 | P. Keerthi | P. Keerthi |
| 23. | MPC-19. | Md. Salma Banu | Md. Salma Banu |
| 24. | MPC-06. | SHAIK. MABJANI | Sh. Mabani |

PHYSICS QUIZ

III. B.Sc (MPC & MPCs)

09-01-2020.

NAME OF THE STUDENT

SIGNATURE

GROUP - A :

B. Gopi

G. Siva

J. Govind

B. Gopi

G. Siva

J. Govind

GROUP - B :

SHAIK. MUBEENA

SHAIK. MABJANI

GUDDURU. SHARON ROJA

Sk. Mubeena

Sk. Mabjani

G. Sharon

GROUP - C :

J. Sasi kumar

A. Siva Nagaraju

p. Siddaiah

J. Sasi kumar

A. Siva Nagaraju

p. Siddaiah

GROUP - D :

N. Venkata Swami

K. Vamsi

Sk. Imambala

N. Venkata Swami

K. Vamsi

Sk. Imambala

NAME OF THE STUDENT:

SIGNATURE:

AUDIENCE:

A. DIVYA

A. Divya

O. Anusha

O. Anusha

O. Ramesh

O. Ramesh

SK. FIROZ

SK. Firoz

K. Hasi Babu

K. Hasi Babu

<u>Group A</u>	<u>Group B</u>	<u>Group c</u>	<u>Group D</u>	<u>AUD</u>	<u>Q.M</u>
###	###	###	###		
###	###	###	###		
	###		###		
	###				
12	<u>20</u>	10	17	2	3

WINNERS: Group B

9/1/20

NOV - Feb - 2020

Sem - II



T.R.R. GOVT DEGREE COLLEGE
KANDUKUR - 523 105, PRAKASAM (Dist :: 08598 223546)
NAAC ACCREDITED - B
2019 - 2020 .



16
16

ACADEMIC ACTIVITY - QUIZ PROGRAMME

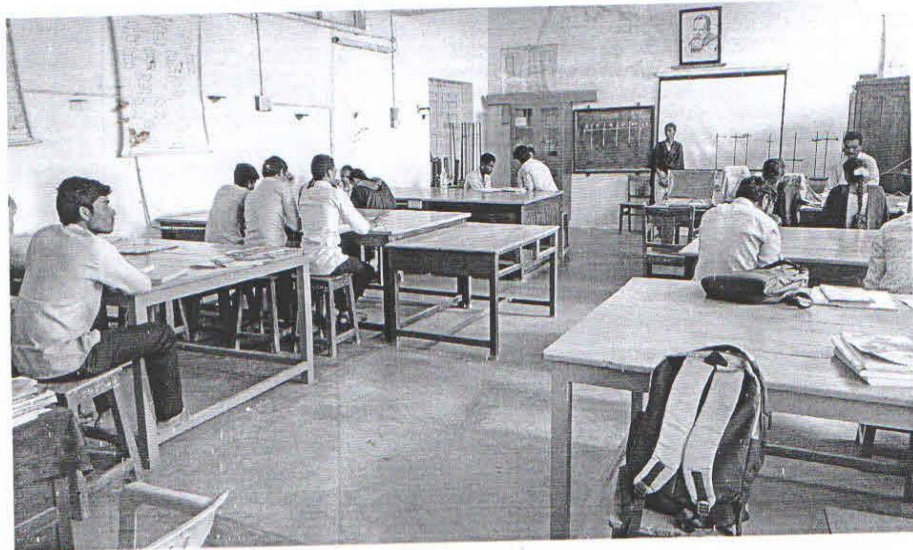
CLASS : I GROUP : Bsc (MPC, CS) DATE : 7/11/2020 HOUR : 4-5 pm

This is certify that the following students have participated in ^{Quiz} ~~Group Discussion~~ on the topics

1) Group - A 2) Group B in the subject General Science

Signature of the Lecturer

S.No	Roll No.	Name of the Student	Signature of the Student
1	06	T. Adithoni	T. Adithoni
2	02	Y.V. Hemanth	Y.V. Hemanth
3	04	SK. Rahaman	SK. Rahaman
4	08	V. Vineendra	V. Vineendra
5	18	M. Naseem	M. Naseem
6	02	A. Sai	A. Sai
7	21	M. Sravya	M. Sravya
8	17	P. Yamuna	P. Yamuna
9	09	K. Padma	K. Padma
10	22	B. Deepthi	B. Deepthi
11	01	MD. Afreen	MD. Afreen
12	05	M. Lavanya	M. Lavanya
13	14	A. Oliva	A. Oliva
14	13	E. Kaveri	E. Kaveri
14	07	M. Msudula	M. Msudula
15	05	P. Mahendra babu	P. Mahendra babu
16	03	S.K. Sandani	S.K. Sandani
17	20	J. Issac	J. Issac
18	16	M. Nagendra Babu	M. Nagendra Babu
19	6	N. Nava Simha	N. Nava Simha
20			



PHYSICS QUIZ

III B.Sc
Dt: 09-01-2020

III A	I B	IV C	II D	Ans	Q.M
12	20	10	17	2	3





QUIZ- Current Affairs and General science

PHYSICS QUIZ

III B-SE

III A	III B	III C	III D	Ans	Q. No
14	11	13	10	3	4


Winners:- Group "A"
Runners:- Group "C"



QUIZ — CURRENT AFFAIRS

ASSIGNMENTS

Assignments were given as a part of student centric activity. It develops writing skills and critical thinking.



T.R.R. GOVT. DEGREE COLLEGE

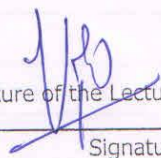
KANDUKUR - 523 105. ☎ 08598 - 223546
NAAC Accredited B⁺

2019 - 2020

ACADEMIC ACTIVITY - ASSIGNMENT - I

CLASS : III GROUP : Bsc (MPC, MPCs) DATE : 24/6/19 HOUR : 4-5 pm.
Checking

This is to certify that the following students have submitted their assignment in Electricity, Magnetism of the topic mentioned against their names.


 Signature of the Lecturer

Sr. No.	Roll No.	Name of the Student	Topic	Signature of the Student
1.	19	md. Salma Banu		md. Salma Banu
2.	20	v. Kalavathi	III B.Sc (MPC)	v. Kalavathi
3.	07	P. Keerthi	III B.Sc (MPC)	P. Keerthi
4.	04	A. Divya	III B.Sc (MPC)	A. Divya
5.	10	G. Sharon Roja		G. Sharon Roja
6.	06	Sk. Mubjani		Sk. Mubjani
7.	08	G. Sriva	III B.Sc (MPCs)	Sriva. G.
8.	01	Hatel Babu. K.		Hatel Babu
9.	08	Sk. Mubeena		Sk. Mubeena
10.	88	K. Vamsi		K. Vamsi
11.	5	Ch. Kalpana		Ch. Kalpana
12.	6	SK. Firoj		SK. Firoj
13.	9	J. Sanku Kumar		J. Sanku Kumar
14.	13	B. Gopi		B. Gopi
15.	17	P. Sidda		P. Sidda
16.	19	A. Seeramma		A. Seeramma
17.	04	A. Nagarajam		A. Nagarajam
18.	04	J. Manuella (SK)		SK. J. Manuella
19.	8	S. Ravindra		S. Ravindra
20.	18	G. Ravindra		G. Ravindra



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.::08598-223546

NAAC ACCREDITED B+

2019 - 2020

ACADEMIC ACTIVITY - Assignment - II

CLASS : III GROUP : Bsc (MPC, MPCO) DATE : 23/9/19 HOUR :

SUBJECT : Electricity, Magnetism PAPER : IV TIME : 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1			
2			
3			
4			

No of Students Present :

Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	04	A. Divya	A. Divya
2	10	G. Sharon Raja	G. Sharon Raja
3	20	V. Kalavathy	V. Kalavathy
4	07	P. Keerthi	P. Keerthi
5	08	S#. MUBEENA	S#. Mubeena
6	19	md. Salma Banu	md. Salma Banu
7	16	J. Gaurav	J. Gaurav
8	13	B. Gopi	B. Gopi
9	5	G. Siva	G. Siva
10	2	P. Ramesh Babee	P. Ramesh Babee
11	04	A. Sivameesha	A. Sivameesha
12	07	P. Siddhi	P. Siddhi
13	19	R. Sairammm.	R. Sairammm.
14	18	O. Ravindra	O. Ravindra
15	1	B. Ajay Babee	B. Ajay Babee
16			



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105. ☎ 08598 - 223546

NAAC Accredited B⁺

2019 - 2020

ACADEMIC ACTIVITY - ASSIGNMENT

CLASS : T GROUP : Bsc (MPC, MPes) DATE : 22/7/19 HOUR : 4-5 pm
(checking)

This is to certify that the following students have submitted their assignment in "Mechanics"..... on the topic mentioned against their names.

Assignment : I - Mechanics of a particle, Continuous media.

Assignment : II - Sp. theory of relativity
Vector Analysis. Signature of the Lecturer

Sr. No.	Roll No.	Name of the Student	Topic	Signature of the Student
1.	04.	K. Haripriya		K. Haripriya
2.	18.	M. Parvathi		M. Parvathi
3.	02	A. Sai		A. Sai
4.	02	Y.v. Hemantha		Y.v. Hemantha
5.	04	SK. Rahaman		SK. Rahaman
6.	06	T. ednthoni		T. ednthoni
7.	17	P. Jamuna		P. Jamuna
8.	21	M. Sravya		M. Sravya
9.	22	B. Deepthi		B. Deepthi
10.	09.	K. padma		K. padma
11.	01.	MA. Absreen		MA. Absreen
12.	05	M. kavanya		M. kavanya
13.	14.	A. Oliva		A. Oliva
14.	07	M. M. Ravi		M. M. Ravi
15.	13.	E. kavari		E. kavari
16.	02	Ch. Gayathri		Ch. Gayathri
17.	03	Y. Mamatha		Y. Mamatha
18.	19.	K. Lakshmi prasanna		K. Lakshmi prasanna
19.				
20.				



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105. ☎ 08598 - 223546

NAAC Accredited B⁺

Paper - II
Sem - II

ACADEMIC ACTIVITY - ASSIGNMENT

CLASS : I GROUP : Bsc (MPC, MPCS) DATE : 22/11/19 HOUR : 4-5
(checking)

This is to certify that the following students have submitted their assignment in Waves & Oscillations on the topic mentioned against their names.

Paper - II

Assignment - I : Square wave, Simple Harmonic Oscillator
- II : damped Oscillator

Signature of the Lecturer

Sr. No.	Roll No.	Name of the Student	Topic	Signature of the Student
1.	01	K. Hari Krishna		K. Hari Krishna
2.	02	A. Sai		A. Sai
3.	18	M. Naveen		M. Naveen
4.	01	Y.V. Hemant		Y.V. Hemant
5.	04	SK. Rahaman		SK. Rahaman
6.	06	T. Anthoni		T. Anthoni
7.	21	M. Sravya		M. Sravya
8.	17	P. Yamuna		P. Yamuna
9.	09	K. Padma		K. Padma
10.	22	B. Deepthi		B. Deepthi
11.	01	MD. Afreen		MD. Afreen
12.	05	M. Lavanya		M. Lavanya
13.	14	A. Oliva		A. Oliva
14.	13	G. Kavari		G. Kavari
15.	07	M. Maudala		M. Maudala
16.	03	S.K. Sandani		S.K. Sandani
17.	05	P. Mahendralakshmi		P. Mahendralakshmi
18.	20	J. Issac		J. Issac
19.	16	M. Nagendra Babu		M. Nagendra Babu

Complex Vibrations

Topic :- Fourier Theorem.

Fourier Theorem :-

The sounds produced by musical instrument are superposition of various simple harmonic motions, which are very complex.

To analyze such complex periodic vibrations, Fourier proposed a theorem called as Fourier theorem.

According to Fourier theorem, "any single valued continuous periodic function can be expressed as a summation of infinite number of simple harmonic terms, whose frequencies are equal to the integral multiples of periodic functions frequency."

mathematically,

$$y = f(\omega t) = A_0 + A_1 \cos \omega t + A_2 \cos(2\omega)t + \dots + A_r \cos(r\omega)t + \dots + B_1 \sin \omega t + B_2 \sin(2\omega)t + \dots + B_r \sin(r\omega)t + \dots \quad (1)$$

$$y = A_0 + \sum_{n=1}^{\infty} (A_n \cos n\omega t + B_n \sin n\omega t) \quad \text{--- (2)}$$

where $y = f(t)$, is the displacement of a complex periodic motion of angular frequency ω , $A_1, A_2, \dots, A_n, B_1, B_2, \dots, B_n$ are constants called as a Fourier coefficients.

Evaluation of Fourier coefficients :-

i) Evaluation of A_0 :-

To evaluate A_0 , we multiply Eq (2) by dt and integrate between the limits $t=0$ & $t=T$.

$$\int_0^T f(\omega t) dt = A_0 \int_0^T dt + \dots + A_n \int_0^T \cos n\omega t dt + \dots + B_1 \int_0^T \sin \omega t dt + \dots + B_n \int_0^T \sin n\omega t dt.$$

$$\int_0^T f(\omega t) dt = A_0 T \quad \left[\begin{array}{l} \because \text{the remaining all integrals are} \\ \text{equal to zero} \because \sin(2\pi n) = 0 \end{array} \right]$$

$$A_0 = \frac{1}{T} \int_0^T f(\omega t) dt \quad \text{--- I.}$$

$$A_0 = \frac{1}{T} \int_0^T f(\omega t) dt \quad \text{--- (I)}$$

Evaluate of A_n :- To Evaluate A_n , we multiply Eq (1)

by $\cos n\omega t$ dt and integrate between $t=0$ to $t=T$.

$$\int_0^T f(\omega t) \cos n\omega t dt = A_0 \int_0^T \cos n\omega t dt + A_1 \int_0^T \cos \omega t \cdot \cos n\omega t dt$$

$$+ \dots + A_n \int_0^T \cos^2 n\omega t dt + B_1 \int_0^T \sin \omega t \cdot \cos n\omega t dt$$

$$+ \dots + B_n \int_0^T \sin n\omega t \cos n\omega t dt.$$

$$= A_n \int_0^T \cos^2 n\omega t dt$$

$$= A_n \int_0^T \left(\frac{1 + \cos 2n\omega t}{2} \right) dt$$

$$= \frac{A_n}{2} \left[t + \frac{\sin 2n\omega t}{2n\omega} \right]_0^T$$

$$\left[\begin{array}{l} \because \omega = \frac{2\pi}{T} \\ \sin 2n\pi = 0 \end{array} \right]$$

$$= \frac{A_n T}{2}$$

$$A_n = \frac{2}{T} \int_0^T f(\omega t) \cos n\omega t dt \quad \text{--- II}$$

Evaluate of B_n :-

To Evaluate of B_n , we multiply eq

(1) by $\sin(n\omega t)$ dt and integrate between $t=0$ & $t=T$.

$$\int_0^T f(\omega t) \sin(n\omega t) dt = A_0 \int_0^T \sin(n\omega t) dt + \dots + A_n$$

$$\int_0^T \sin(n\omega t) \cos(n\omega t) dt + \dots + B_n \int_0^T \sin^2(n\omega t) dt$$

$$+ \dots$$

$$= B_r \int_0^T \sin^2(\omega t) dt$$

$$= B_r \int_0^T \left(\frac{1 - \cos 2\omega t}{2} \right) dt$$

$$= \frac{B_r}{2} \left(t - \frac{\sin 2\omega t}{2\omega} \right) \Big|_0^T$$

$$\int_0^T f(\omega t) \sin \omega t dt = \frac{B_r t}{2}$$

$$B_r = \frac{2}{T} \int_0^T f(\omega t) \sin \omega t dt \quad \text{--- iii.}$$



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105

[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



STUDENT SEMINAR - 2018-19

Student seminar was conducted for 3rd BA students on 11 December 2018. Total students participated in the event is 11. The students presented their respective selected topics in Agricultural Economics paper.

STUDENT SEMINAR-- 2018-19

Student seminar was conducted for 3rd BA students on 11 December 2018. Total students participated in the event is 11. The students presented their respective selected topics in Agricultural Economics paper.

1	Name of the Lecturer	Dr Ch Sankara Rao
2	Name of the Topic	Different topics of Students Choice
3	Class & Year	II -BA
4	Date	11-12-2018

S.no	Name of the Student	Class & Year	Hall Ticket No	Signature of the Student
1	Ch Pawan Kalyan	II BA	Y181037010	Ch. Pawan Kalyan
2	Ch Poojitha	II BA	Y181037011	Ch. Poojitha
3	G Karthik	II BA	Y181037017	G. Karthik
4	G Tirupalu	II BA	Y181037018	G. Tirupalu
5	J Mahendra	II BA	Y181037020	J. Mahendra
6	K Venu Madhava	II BA	Y181037021	K. Venu Madhava
7	P Sumanth	II BA	Y181037029	P. Sumanth
8	D Mallikarjuna	II BA	Y181037043	D. Mallikarjuna
9	M S Lokesh	II BA	Y181037047	M.S. Lokesh
10	P Bala Raju	II BA	Y181037030	P. Bala Raju
11	P Mani Kanta	II BA	Y181037031	P. Mani Kanta


Signature of the Lecturer

2019-20

Field Visit to Agricultural Market Yard–Kandukur on 07-02-2020

Department of Economics has organized the field visit to Agricultural Market Yard, Kandukur to B.A. Final Year students as the part of their paper – Agricultural Economics and Cluster on 07 February 2020 from 2pm to 5pm.

The students were accompanied by lecturers Dr. CH. Sankar Rao and Sri P. Koteswar Rao. Sri Srinivasulu, the Secretary, AMC, Kandukur has showed all the important places in the market yar – entry-exit gates, auction point, storage godown etc. He also explained the student about the process of market yard function, the products, new initiatives like e-NAM and also about their future plans for the development of agricultural marketing in the area. This field visit has helped the student to practically understand the functioning, facilities and plans of agricultural marketing in the area. The students also submitted their reports on the field visit.





Agricultural Village Field Visit to Ponnaluru on 18-02-2020

Department of Economics has organized the agricultural village field visit to Ponnaluru village, 12 km from Kandukur to B.A. Final Year students as the part of their paper – Agricultural Economics and Cluster on 18 February 2020 from 10pm to 4pm.

The students were accompanied by lecturers Dr. CH. Sankar Rao and Sri P. Koteswar Rao. The students were made to interact with farmers in the village about the general conditions and problems of the agriculture in the area. Later they were taken to a field of Bengalgram, cotton and Guava and interatected with the cultivating farmers. Finally , the students were taken to the fields of red chilli, tobacco and watermilan cultivation and were shown the farming methods and practices. They also interacted with the students. The solar pumpsets were the special attention to the students. In all the places, the farmers have explained the conditions of farming – the cost, revenue, output prices, inputs procumbent, problems of labour, marketing, credit etc.

This field visit has helped the student to practically understand the economics of farming –input management, production, marketing etc in the area. The students also submitted their reports on the field visit.




R
Shot on realme 3 Pro
By Durgaprasad Manna



R
Shot on realme 3 Pro
By Durgaprasad Manna

1	Name of the Lecturer	Dr Ch Sankar Rao & P Koteswara Rao
2	Name of the Topic	Field Visit at Ponnalur Village,Prakasam dist
3	Class & Year	III BA
4	Date	18-02-2020

S.no	Name of the Student	Class & Year	Hall Ticket No	Signature of the Student
1	A Ramakotaiah	III BA	Y181037004	A. Ramakotaiah
2	Ch Poojitha	III BA	Y181037011	Ch. Poojitha
3	D Ganesh	III BA	Y181037013	D. Ganesh
4	J Mahendra	III BA	Y181037020	J. Mahendra
5	K Venu madhava	III BA	Y181037021	K. Venu
6	P Sumanth	III BA	Y181037029	P. Sumanth
7	R Nikhil	III BA	Y181037034	R. Nikhil
8	Sk Rajak Vali	III BA	Y181037035	Sk. Rajak Vali
9	A John Babu	III BA	Y181037039	A. John Babu
10	A Govindu	III BA	Y181037040	A. Govindu
11	B Prasad	III BA	Y181037042	B. Prasad
12	D Mallikarjuna	III BA	Y181037043	D. Mallikarjuna
13	M S Lokesh	III BA	Y181037047	M. S. Lokesh
14	Ch Saikiran	III BA	Y181037001	Ch. Saikiran
15	P Balaraju	III BA	Y181037030	P. Balaraju
16	G Ramanaiah	III BA	Y181037016	G. Ramanaiah


Signature of the Lecturer



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,PrakasamDistrict,Andhra Pradesh,Pincode:523105

[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



Name of the Student: K. Madhu Sudhan

Year & Group : III B.com (Computer Applications)

Topic Name : Online Marketing _ Advantages and Disadvantages

ABSTRACT

The date of Commencement of Internet in the year 1960. Officially, the date of birth of internet January 1, 1983. After revolution in the information technology, tremendous changes are occurred in the communication process, business activities and marketing. Overpopulation and expand the industrialization, Indian govt introduced the startup programme, competition is more and more. So that the business need to turn to the different strategies to carrying the marketing activities. In the part of marketing activities the business organisations follow the online marketing through the internet for reaching the maximum satisfaction of customer and communicate the information for even though rural people. There is number of advantageous i.e., global reach, lower cost etc., but some of the demerits time consuming, skills and training etc., are also.





T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2019-2020

ACADEMIC ACTIVITY - SEMINAR

S: Final year GROUP: B.Com DATE: 23-11-19 HOUR:.....
ECT: Marketing PAPER:..... TIME: 15min.

Roll No.	Name of the Student	Signature of the Student
	1	
	1	
	<u>Online Marketing - Advantages, Disadvantages</u>	
	<u>1) K. Madhusudhan</u>	

Students Present :

B. K. Srinivas
Signature of the Lecturer

Roll No.	Name of the Student	Signature of the Student
<u>Y177037040</u>	<u>S. Abdul Gaffar</u>	<u>S. Abdul Gaffar</u>
<u>Y177037042</u>	<u>T. Sindhu</u>	<u>T. Sindhu</u>
<u>Y177037039</u>	<u>S. Vinod</u>	<u>S. Vinod</u>
<u>Y177037048</u>	<u>Y. Kesavulu</u>	<u>Y. Kesavulu</u>
<u>Y177037044</u>	<u>J. Srikanth</u>	<u>J. Srikanth</u>
<u>Y177037005</u>	<u>R. Vishnu</u>	<u>R. Vishnu</u>
<u>Y177037024</u>	<u>M. Saran Kumar</u>	<u>M. Saran Kumar</u>
<u>Y177037027</u>	<u>N. Ashok</u>	<u>N. Ashok</u>
<u>Y177037049</u>	<u>J. Mallikarjuna</u>	<u>J. Mallikarjuna</u>
<u>Y177037003</u>	<u>B. Siva Durga Rao</u>	<u>B. Siva Durga Rao</u>
<u>Y177037021</u>	<u>C. Maheshwari</u>	<u>C. Maheshwari</u>
<u>Y177037007</u>	<u>D. Prabhakar</u>	<u>D. Prabhakar</u>
<u>Y177037022</u>	<u>K. MADHUSUDHAN</u>	<u>K. Madhusudhan</u>

2022.09.17 22:52

Shot on Y12
Vivo AI camera



Introduction

Definition.

online marketing is a set of tools and methodologies used for promoting products and services through the internet. online marketing includes a wider range of marketing elements than traditional business marketing due to the extra channels and marketing mechanisms available on the internet.

online marketing is also known as internet marketing, web marketing or digital marketing. it includes several branches such as social media marketing (SMM), search engine optimization (SEO), pay-per-click advertising (PPC) and search engine marketing (SEM).

Effective online marketing programs leverage consumer data and customer relationship management systems. online marketing connects organizations with qualified potential customers and takes business development to a much higher level than traditional marketing.

It also helps a company raise its brand awareness by establishing its online presence across the internet.

online marketing combines the internet's creative and technical tools, including design, development, sales and advertising while focusing on the following primary



Shot on Y12

Vivo AI camera

1. E-commerce
2. Lead-based websites
3. Affiliate marketing

4. Local SEO
5. Social media

2022.09.17 16:23

1. Help you to find potential customer :- Searching customers

Through social media platform is easier and productive. It is important to know more about your target audience. Knowing their interests, needs and preferences will lead to successful marketing strategies. For example - using Instagram insight on Instagram app, you can see the statistical data of your follower's age group, gender etc. Through this you can target your audience accordingly.

2. Catch the line :- This is one of the biggest advantages of online marketing. It is difficult for small and medium size company to pay for bill board, TV ads, radio ads etc. However, there are some strategies like search engine optimization (SEO) pay-per-click (PPC) content marketing etc) which are cost friendly.

3. 24/7 available service :- Now customers don't have to wait for the opening of your store to make a purchase. Internet marketing has given them the privilege to browse your website/app at any time. This gives an opportunity to create brand awareness among target customers.

4. Performance can be measured :- online tools such as Google analytics, pay per click and search engine optimization (SEO) can be used to track leads generated for the particular time being. It makes it easy to interpret results by analysing various trackers like impressions, likes, shares etc.



Shot on Y12
Vivo AI camera

Relationships :- You must take advantage of social media platform like Facebook, Instagram etc to

2022.09.17 16:23



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur, Prakasam District, Andhra Pradesh, Pincode: 523105

[Established in 1966, Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



Name of the Student: D. Mounika

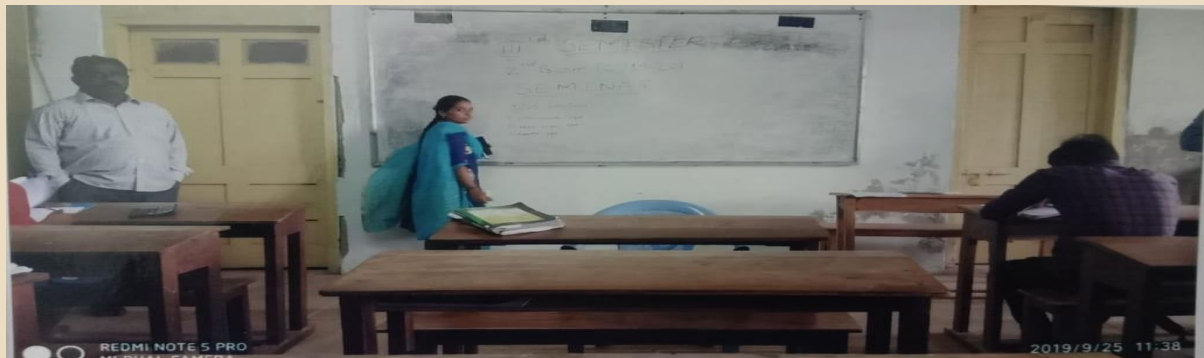
Year & Group : III B.com (Computer Applications)

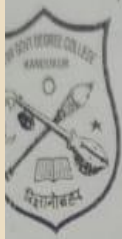
Topic Name : Bonus Issue, Regulations on Bonus Issues

ABSTRACT

Bonus shares are additional shares given to the current shareholders without any additional cost, based upon the number of shares that a shareholder owns. These are company's accumulated earnings which are not given out in the form of dividends, but are converted into free shares.

Companies issue bonus shares to encourage retail participation and increase their equity base. When price per share of a company is high, it becomes difficult for new investors to buy shares of that particular company. Increase in the number of shares reduces the price per share. But the overall capital remains the same even if bonus shares are declared.





T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2019 - 2020

ACADEMIC ACTIVITY - *Seminar*

COURSE : GROUP : *2nd B.Com* DATE : *22-11-19*, ~~23-11-19~~ HOUR :

SUBJECT : *Corporate Accounting* PAPER : TIME : 15min.

Roll No.	Name of the Student	Signature of the Student

Corporate Accounting - Bonus Issue, Regulations or Bonus Issue

- 1) D. Moumika
- 2) SK. Asma
- 3) M. Guravaiah
- 4) Y. Siva Prasanna

M. Gangadhar Rao
Signature of the Lecturer

Students Present :

Roll No.	Name of the Student	Signature of the Student
<i>V187037009</i>	<i>G. Masiyamma</i>	<i>G. masiyamma</i>
<i>V187037026</i>	<i>SK. Asma</i>	<i>SK. Asma</i>
<i>V187037008</i>	<i>D. Moumika</i>	<i>D. Moumika</i>
<i>V187037019</i>	<i>M. Srethi</i>	<i>M. Srethi</i>
<i>V187037023</i>	<i>T. Manisha</i>	<i>T. Manisha</i>
<i>V187037029</i>	<i>T. Shwini</i>	<i>T. Shwini</i>
<i>V187037035</i>	<i>Y. SIVA PRASANNA</i>	<i>Y. SIVA PRASANNA</i>
<i>V187134011</i>	<i>Ch. pradeep</i>	<i>Ch. pradeep</i>
<i>V187037025</i>	<i>P. Arinash</i>	<i>P. Arinash</i>
<i>V187037020</i>	<i>H. Guravaiah</i>	<i>H. Guravaiah</i>
<i>V187037018</i>	<i>M. Hazshavaradhan.</i>	<i>M. Hazshavaradhan.</i>
<i>V187037007</i>	<i>Ch. Sivon kumar</i>	<i>Ch. Sivon kumar</i>



Shot on Y12
Vivo AI camera

2022.09.17 23:35

Introduction: consignment is the dispatch of goods by the principal known as "consignor" to the place of an agent known as "consignee" for the purpose of sale of the goods. Consignor pays commission on the sale proceeds to the consignee for the services rendered by him. Sometimes consignor demands security and therefore, the consignee sends either cash in advance or his acceptance as a security.

The goods are sent on consignment by the consignor to the consignee and it would be consignment 'outwards' to the consignor and consignment 'inwards' to the consignee.

If the goods are damaged in transit, the loss would be borne by the consignor only.

Features of consignment (IMP)

⇒ consignor sends goods to the consignee for sales.

⇒ consignor is the principal, and the consignee is the agent of the consignor.



Shot on Y12
Vivo AI camera

2022-09-16 14:36

Remuneration :-

commission is paid to the consignee

7. Remuneration	commission is paid to the consignee	no remuneration is paid to the buyer
8. Bad debts	consignor bears the bad debts loss and if the consignee receives net -credit commission, bad debts loss is borne by the consignee.	bad debts loss is always borne by the seller.

The accounts that are opened by the consignor are:-

* consignment Account :- To ascertain the profit or loss on account of consignment.

* consignee's Account :- To ascertain the amount due from the consignee.

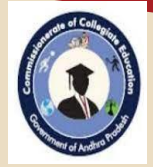
* goods sent on consignment a/c :- To keep a record





T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur, Prakasam District, Andhra Pradesh, Pincode: 523105
[Established in 1966, Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student: Sk. Asma

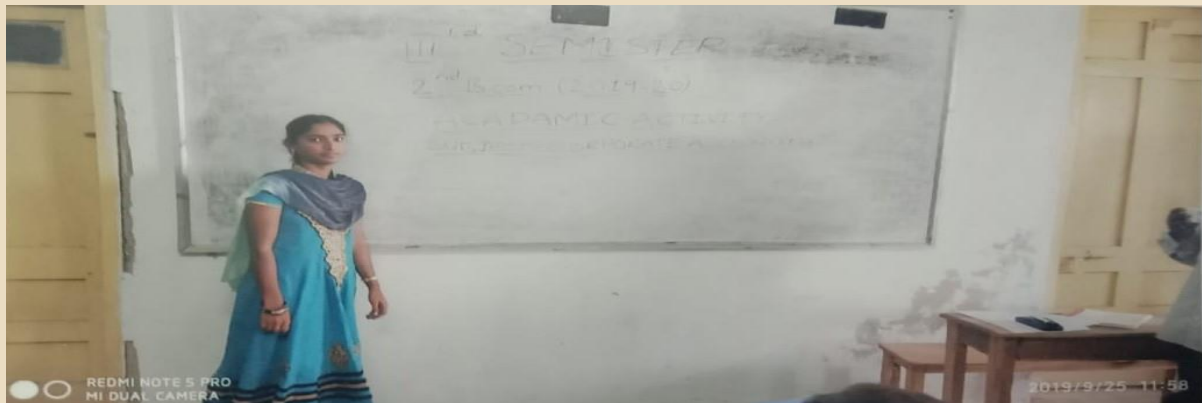
Year & Group : III B.com (Computer Applications)

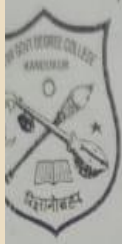
Topic Name : Bonus Issue, Regulations on Bonus Issues

ABSTRACT

Bonus shares are additional shares given to the current shareholders without any additional cost, based upon the number of shares that a shareholder owns. These are company's accumulated earnings which are not given out in the form of dividends, but are converted into free shares.

Companies issue bonus shares to encourage retail participation and increase their equity base. When price per share of a company is high, it becomes difficult for new investors to buy shares of that particular company. Increase in the number of shares reduces the price per share. But the overall capital remains the same even if bonus shares are declared.





T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.::08598-223546

NAAC ACCREDITED B+

2019 - 2020

ACADEMIC ACTIVITY - Seminar

COURSE : GROUP : B. Com

DATE : 22-11-19, ~~23-11-19~~ HOUR :

SUBJECT : Corporate Accounting PAPER :

TIME : 15min.

Roll No.	Name of the Student	Signature of the Student

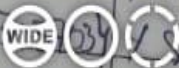
Corporate Accounting - Bonus Issue, Regulations or Bonus Issue

- 1) D. Moumika
- 2) SK. Asma
- 3) M. Guravaiah
- 4) Y. Siva Prasanna

M. Gangaiah
Signature of the Lecturer

Students Present :

Roll No.	Name of the Student	Signature of the Student
Y187037019	G. Mairiyamma	G. Mairiyamma
Y187037026	SK. Asma	SK. Asma
Y187037008	D. Moumika	D. Moumika
Y187037019	M. Sreethi	M. Sreethi
Y187037023	T. Manisha	T. Manisha
Y187037029	T. Shwini	T. Shwini
Y187037035	Y. SIVA PRASANNA	Y. SIVA PRASANNA
Y187134011	Ch. pradeep	Ch. pradeep
Y187037025	P. Arinash	P. Arinash
Y187037020	H. Guravaiah	H. Guravaiah
Y187037018	M. Harshavardhan	M. Harshavardhan
Y187037007	Ch. Shivam kumar	Ch. Shivam kumar



Shot on Y12
vivo AI camera

2022.09.17 23:35

- 1) It is declined in the book value of fixed ass
- 2) Such a declined is permanent in nature and once the value is reduced due to depreciation. It be restored to its original value.
- 3) It include loss of value due to effluxion of time, usage or obsolescence
- 4) It is a continuous process
- 5) It is a non-cash expenses. It does not involve any cash outflow.



Depreciation is a permanent and gradual decrease in the book value of Depreciation

Fixed assets

It is based on the cost of assets consumed and not on its market value.

Definition

The term depreciation represents loss or diminution in the value of an asset consequent upon wear and tear, obsolescence, effluxion of time or permanent fall in a market value.

J. R. Balli boi



Shot on Y12
Vivo AI camera

2022.09.16 14:37



T.R.R. GOVERNMENT DEGREE COLLEGE

Kandukur,PrakasamDistrict,Andhra Pradesh,Pincode:523105

[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



Name of the Student: M. Guravaiah

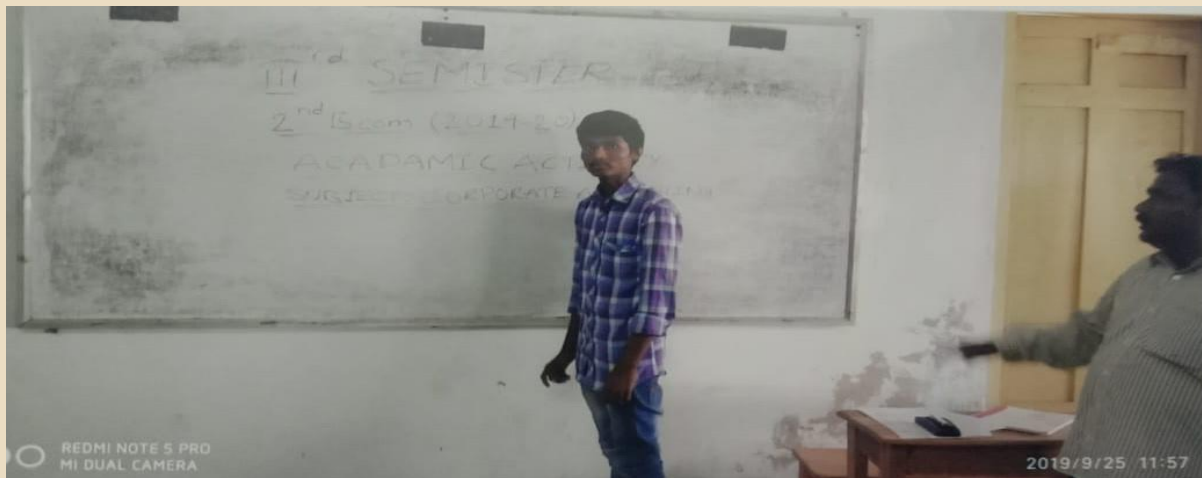
Year & Group : III B.com (Computer Applications)

Topic Name : Bonus Issue, Regulations on Bonus Issues

ABSTRACT

Bonus shares are additional shares given to the current shareholders without any additional cost, based upon the number of shares that a shareholder owns. These are company's accumulated earnings which are not given out in the form of dividends, but are converted into free shares.

Companies issue bonus shares to encourage retail participation and increase their equity base. When price per share of a company is high, it becomes difficult for new investors to buy shares of that particular company. Increase in the number of shares reduces the price per share. But the overall capital remains the same even if bonus shares are declare.





T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.::08598-223546

NAAC ACCREDITED B+

2019 - 2020

ACADEMIC ACTIVITY - Seminar

CLASS : GROUP : 2nd B.Com DATE : 22-11-19, ~~23-11-19~~ HOUR :

SUBJECT : Corporate Accounting PAPER : TIME : 15min.

No.	Roll No.	Name of the Student	Signature of the Student

Corporate Accounting - Bonus Issue, Regulations or Bonus Issue

- 1) D. Moumika
- 2) SK. Asma
- 3) M. Guravaiah
- 4) Y. Siva Prasanna

No. of Students Present :

M. Gangaadhar Rao
Signature of the Lecturer

No.	Roll No.	Name of the Student	Signature of the Student
	V187037019	G. Masiyamma	G. Masiyamma
	V187037026	SK. Asma	SK. Asma
	V187037008	D. Moumika	D. Moumika
	V187037019	M. Sreethi	M. Sreethi
	V187037023	T. Manisha	T. Manisha
	V187037029	T. Shwini	T. Shwini
	V187037035	Y. SIVA PRASANNA	Y. SIVA PRASANNA
	V187134011	Ch. pradeep	Ch. pradeep
	V187037025	P. Arinash	P. Arinash
	V187037020	M. Guravaiah	M. Guravaiah
	V187037018	M. Harshavardhan.	M. Harshavardhan.
	V187037007	Ch. swan kumar	Ch. swan kumar

Shot on Y12
Vivo AI camera

2022.09.17 23:35

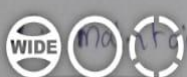
1. Help you to find potential customer :- Searching customer

Through social media platform is easier and productive. It is important to know more about your target audience. Knowing their interests, needs and preferences will lead to successful marketing strategies. For example - using Instagram insight on Instagram app, you can see the statistical data of your follower's age group, gender etc. Through this you can target your audience accordingly.

2. Catchedive :- This is one of the biggest advantages of online marketing. It is difficult for small and medium size company to pay for bill board, TV ads, radio ads etc. However, there are some strategies like search engine optimization (SEO) pay-per-click (PPC) content marketing etc) which are cost friendly.

3. 24/7 available service :- Now customers don't have to wait for the opening of your store to make a purchase. Internet marketing has given them the privilege to browse your website/app at any time. This gives an opportunity to create brand awareness among target customers.

4. Performance can be measured :- Online tools such as Google analytics, pay per click and search engine optimization (SEO) can be used to track leads generated for the particular time being. It makes it easy to interpret results by analysing various trackers like impressions, likes, shares etc.



Shot on Y12

Vivo AI camera

Relationships :- You must take advantage of social media platform like Facebook, Instagram etc to

2022.09.17 16:23

1. Helps you to find potential customers :- Searching through social media platform is easier and productive. It is important to know more about your target audience. Knowing their interests, needs and preference will lead to successful marketing strategy. For example - using Instagram insight on Instagram app, you can see the statistical data of your follower's age group, gender etc. Through this you can target your audience accordingly.

2. Cost effective :- This is one of the biggest advantages of online marketing. It is difficult for small and medium size companies to pay for bill board, TV ads, radio ads etc. However, there are some strategies like search engine optimization (SEO) pay-per-click (PPC) content marketing etc) which are cost friendly.

3. 24/7 available service :- Now customers don't have to wait for the opening of your store to make a purchase. Internet marketing has given them the privilege to browse your website at any time. This gives an opportunity to create brand awareness among target customers.

4. Performance can be measured :- Online tools such as Google analytics, pay per click and search engine optimization (SEO) can be used to track leads generated for the particular time being. It makes it easy to interpret results by analysing various trackers like impressions, likes, shares etc.



Shot on Y12
Vivo AI camera

Relationship :- You must take advantage of social media platform like Facebook, Instagram etc to

2022.09.17 16:23



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur, Prakasam District, Andhra Pradesh, Pincode: 523105

[Established in 1966, Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



Name of the Student: Y. Siva Prasanna

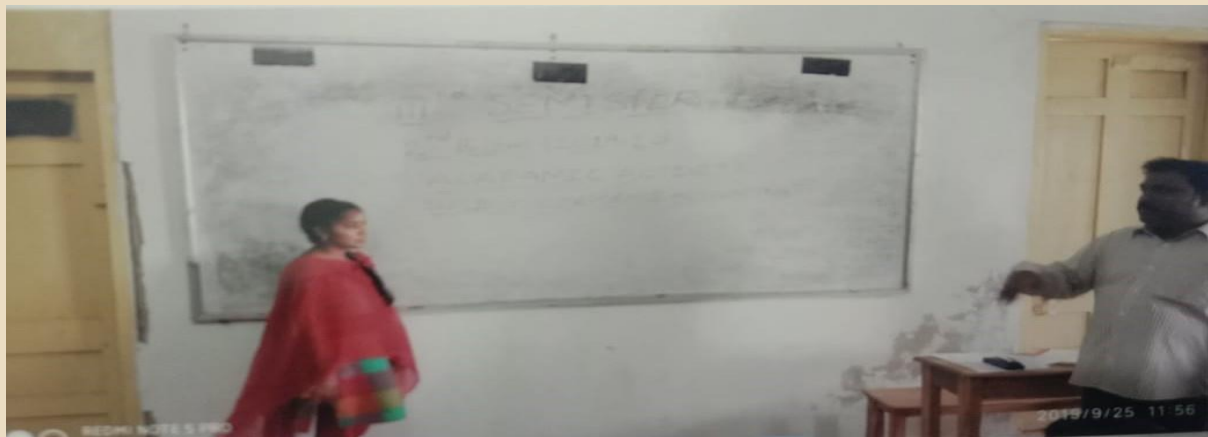
Year & Group : III B.com (Computer Applications)

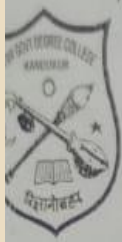
Topic Name : Bonus Issue, Regulations on Bonus Issues

ABSTRACT

Bonus shares are additional shares given to the current shareholders without any additional cost, based upon the number of shares that a shareholder owns. These are company's accumulated earnings which are not given out in the form of dividends, but are converted into free shares.

Companies issue bonus shares to encourage retail participation and increase their equity base. When price per share of a company is high, it becomes difficult for new investors to buy shares of that particular company. Increase in the number of shares reduces the price per share. But the overall capital remains the same even if bonus shares are declared.





T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.::08598-223546

NAAC ACCREDITED B+

2019-2020

ACADEMIC ACTIVITY - Seminar

COURSE : GROUP : B.Com

DATE : 22-11-19, ~~23-11-19~~ HOUR :

SUBJECT : Corporate Accounting PAPER :

TIME : 15min.

Roll No.	Name of the Student	Signature of the Student

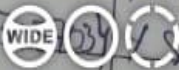
Corporate Accounting - Bonus Issue, Regulations or Bonus Issue

- 1) D. Moumika
- 2) SK. Asma
- 3) M. Guravaiah
- 4) Y. Siva Prasanna

M. Gangaiah
Signature of the Lecturer

Students Present :

Roll No.	Name of the Student	Signature of the Student
187037019	G. Maniyamma	G. Maniyamma
187037026	SK. Asma	SK. Asma
187037008	D. Moumika	D. Moumika
187037019	M. Sathu	M. Sathu
187037023	T. Manisha	T. Manisha
187037029	T. Shwini	T. Shwini
187037035	Y. SIVA PRASANNA	Y. SIVA PRASANNA
187134011	Ch. pradeep	Ch. pradeep
187037025	P. Arinash	P. Arinash
187037020	H. Guravaiah	H. Guravaiah
187037018	M. Harshavardhan	M. Harshavardhan
187037007	Ch. swan kumar	Ch. swan kumar



Shot on Y12
Vivo AI camera

2022.09.17 23:35

1. Commission	Commission is paid by the consignor to the consignee.	No commission is paid by the seller to the buyer.
2. Ownership	Ownership lies with the consignor.	Ownership is transferred to the buyer once the goods are sold.
3. Return of goods	Consignee can always return the goods to the consignor.	Goods cannot be returned by the buyer unless they are bought on approval basis.
4. Relationship	The relationship between the consignor and the consignee is that of principal and agent.	The relationship between the buyer and seller is that of a debtor and a creditor.
5. Account sales	The consignee sends an account sales to the consignor.	No such account sales is sent.
6. Profit / loss	The profit/loss out of consignment is that	The profit/loss out of



Introduction: consignment is the dispatch of goods by the principal known as "consignor" to the place of an agent known as "consignee" for the purpose of sale of the goods. consignor pays commission on the sale proceeds to the consignee for the services rendered by him. sometimes consignor demands security and therefore, the consignee sends either cash in advance or his acceptance as a security.

The goods are sent on consignment by the consignor to the consignee and it would be consignment 'outwards' to the consignor and consignment 'inwards' to the consignee.

If the goods are damaged in transit, the loss would be born by the consignor only.

Features of consignment (IMP)

⇒ consignor sends goods to the consignee for sales.

⇒ consignor is the principal, and the consignee is the agent of the consignor.



Shot on Y12

Vivo AI camera

2022-09-16 14:36

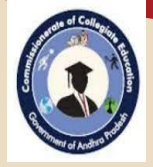


T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,PrakasamDistrict,Andhra Pradesh,Pincode:523105

[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



Name of the Student: S. Gopinath

Year & Group : III B.com (Computer Applications)

Topic Name : Types of Business Organizations, advantages & Disadvantages.

ABSTRACT

Starting a business involves making many important decisions, especially in terms of choosing the right form of business structure. Taking enough time to research your options and understand how each of the major organization structures work may help you make the best choice for your company.





T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2019 - 2020

ACADEMIC ACTIVITY - Seminar

CLASS : 1st year GROUP : B.Com DATE : 19/08/19 HOUR :
 SUBJECT : Accounting I PAPER : BOM TIME : 15min.

No.	Roll No.	Name of the Student	Signature of the Student
1			
2		"Types of Business Organisations, Advantages, Disadvantages"	
3			
4		1) S. Gopinath 2) P. Manasa	

of Students Present :

No.	Roll No.	Name of the Student	Signature of the Student
		G. Balu Ayyanna.	
		B. VAMSI	B. Vamsi
		B. JAYASEELAN	B. Jaya Seelan
		N. vijay	N. vijay
		B. yehoshuva	B. Yehoshuva
		P. Brahmamah	P. Brahmamah
		B. vijay kumar	B. vijay kumar
		x. kiran	y. kiran
		P. Narendrab	P. Narendrab
		G. Mani kumar	G. Mani kumar
		K. Venkateswarlu	K. Venkateswarlu
		B. Arjun	B. Arjun

Signature of the Lecturer

relationships.

6. Open new market:- social media acts as a whole new marketing platform, where you can gain customer loyalty, and build your brand image. Each satisfied customer can act as a marketer for your company.

Disadvantages of online marketing

1. Requiring Skill & Training:- Being a digital marketer requires lots of learning and training. Digital marketing keeps on changing with the time, so it's necessary to keep oneself up to date with the technologies. SEO, PPC and Google Analytics tools require prior trainings and assistance.
2. Enormous Competitors:- It is quite challenging to stand out among competitors. If you want to reach out to the global buyers, then you have to face stiff competition as well. These strategies like customer analytics ability should be designed to deliver a great customer experience.
3. Privacy & Security Issues:- The base of using online marketing is the internet. It may bring threat to the privacy of customer databases. Companies must take care of their security system. They must comply with acts as a shield to protect data from hackers.
4. Time-Consuming:- It is not a one-day wonder. It requires lots of time to develop a plan and execute it. Learning SEO & PPC tools, etc. eyes of the audience, etc.



Shot on Y12

Vivo AI camera

2022.09.17 16:24

5. Negative publicity: negative comments spread faster than positive one. Even a single bad review about the company may affect the goodwill of the company. Moreover, online marketing on social media platform is more riskier. As negative comments come into light and get shared rapidly.

6. Strategies can be copied: - It takes no time to copy your marketing strategy. Privacy can be seen among competitors. Your marketing campaign and strategies should remain protected from the competitors.

Conclusion: Even though, the online marketing has a certain limitation, but it is most useful for reaching the consumers with less cost and speedy communication.





T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,PrakasamDistrict,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



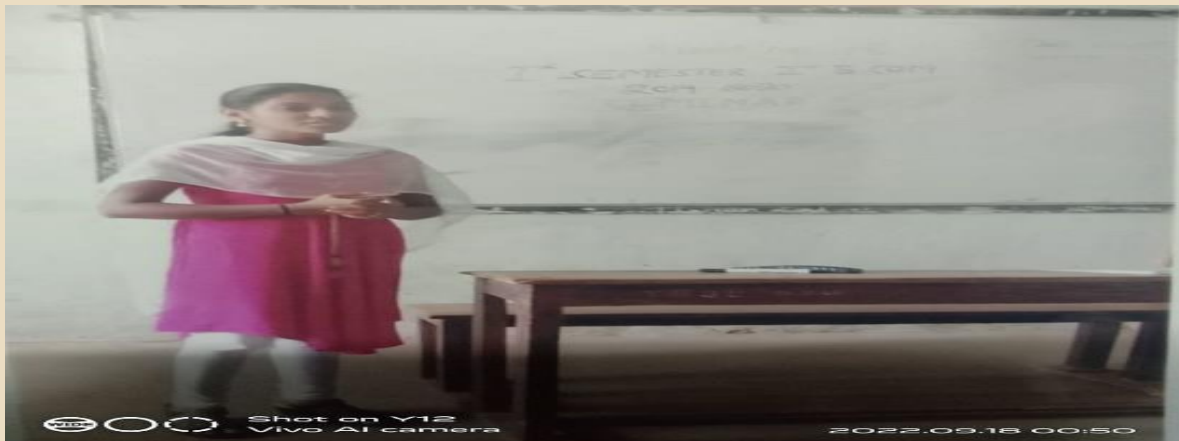
Name of the Student: P. Manasa

Year & Group : III B.com (Computer Applications)

Topic Name : Types of Business Organizations, advantages & Disadvantages.

ABSTRACT

Starting a business involves making many important decisions, especially in terms of choosing the right form of business structure. Taking enough time to research your options and understand how each of the major organization structures work may help you make the best choice for your company.





T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2019-2020

ACADEMIC ACTIVITY - Seminar

CLASS : 1st year GROUP : B.Com DATE : 19/08/19 HOUR :
 SUBJECT : Accounting 2 PAPER : BOM TIME : 15min.

No.	Roll No.	Name of the Student	Signature of the Student
1			
2		"Types of Business Organisations, Advantages, Disadvantages"	
3		1) S.Gopinath	
4		2) P.Manasa	

of Students Present :

No.	Roll No.	Name of the Student	Signature of the Student
		G. Balu Ayyanna.	<i>G.A.</i>
		B. VAMSI	B. Vamsi
		B. JAYASEELAN	B. Jaya Seelan
		N. vijay	N. vijay
		B. yehoshuva	B. Yehoshuva
		P. Brahmamah	P. Brahmamah
		B. vijay kumar	B. vijay kumar
		y. kiran	y. kiran
		P. Narendrab	P. Narendrab
		G. Mani kumar	G. Mani kumar
		K. Venkateswarlu	K. Venkateswarlu
		B. Arjun	B. Arjun

B. Jayaram
Signature of the Lecturer

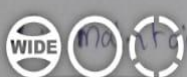
1. Help you to find potential customer :- Searching customers

Through social media platform is easier and productive. It is important to know more about your target audience. Knowing their interests, needs and preferences will lead to successful marketing strategies. For example - using Instagram insight on Instagram app, you can see the statistical data of your follower's age group, gender etc. Through this you can target your audience accordingly.

2. Catchedive :- This is one of the biggest advantages of online marketing. It is difficult for small and medium size company to pay for bill board, TV ads, radio ads etc. However, there are some strategies like search engine optimization (SEO) pay-per-click (PPC) content marketing etc) which are cost friendly.

3. 24/7 available service :- Now customers don't have to wait for the opening of your store to make a purchase. Internet marketing has given them the privilege to browse your website at any time. This gives an opportunity to create brand awareness among target customers.

4. Performance can be measured :- Online tools such as Google analytics, pay per click and search engine optimization (SEO) can be used to track leads generated for the particular time being. It makes it easy to interpret results by analysing various trackers like impressions, likes, shares etc.



Shot on Y12

Vivo AI camera

Relationships :- You must take advantage of social media platform like Facebook, Instagram etc to

2022.09.17 16:23

relationships.

6. Open New Market:- Social media acts as a whole new marketing platform, where you can gain customer loyalty, and build your brand image. Each satisfied customer can act as a marketer for your company.

Disadvantages of online marketing

1. Requires Skill & Training:- Being a digital marketer requires lots of learning and training. Digital marketing keeps on changing with the time, so it's necessary to keep oneself up to date with the technologies. SEO, PPC and Google Analytics tools require prior trainings and assistance.
2. Enormous Competitors:- It is quite challenging to stand out among competitors. If you want to reach out to the global buyers, then you have to face stiff competition as well. Hence, strategies like customer analytics ability should be designed to deliver a great customer experience.
3. Privacy & Security Issues:- The base of using online marketing is the internet. It may bring a threat to the privacy of customer databases. Companies must take care of their security system. They must comply with acts as a shield to protect data from hackers.
4. Time-Consuming:- It is not a one-day wonder. It requires lots of time to develop a plan and execute it. Learning SEO & PPC tools, etc.



Shot on Y12
Vivo AI camera

2022.09.17 16:24



**TRR GOVERNMENT DEGREE COLLEGE,
KANDUKUR, PRAKASAM DT.
DEPARTMENT OF BOTANY**



ACTIVITY REPORT

Activity: Work Shop on Azolla Culture, Vermicompost and Organic farming	Date: 30/12/2021
Venue: Room No. Seminar Hall	participants: Students, Staff and Local farmers

Our TRR Government Degree college is always running in the forefront in case of outreach programs. Through outreach programs, we can mass spread awareness among the public. As a responsible institute, we organized a one-day workshop on *Azolla* culture and Vermicompost Preparation to the students of the college and local farmers. Though the turnout of farmers is low (32) we succeeded in disseminating the knowledge of *Azolla* culture and Vermicompost preparation. Central Tobacco Research Institution, Regional Station Kandukur faculty participated in the program as the resource persons under the able leadership of their Regional Station Director P. Anuradha. In this program J. Venkateswarlu an Organic farmer graced the occasion and shared his views on Organic farming methods. The farmers visited our *Azolla* Pond and Vermicompost Unit. Department of Botany organized the lunch program to the local farmers. All the students of the college actively participated in this program.



Right to left: 1. Dr. P. Raja Gopal Babu, IQAC Coordinator N. Sudheer Babu, Dr.M. Ravi Kumar (Principal) Dr. P. Anuradha, CTRI RS Head, Jillellamudi Venkateswarlu, Expert Organic farmer



Local Farmers, staff and the BZC students participating the program



Central tobacco Research Institute Regional station Head Dr. P. Anuradha addressing the farmers





Nasreen CTRI resource person, creating awareness on Azolla Culture



Manoj, CTRI resource person, creating awareness on Vermi compost preparation through PPT



Jillellamudi Venkateswarlu creating awareness on Organic forming to the local farmers and students

TRR GOVERNMENT DEGREE COLLEGE, KANDUKUR
DEPARTMENT OF BOTANY

RESOLUTION

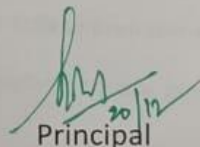
20-12-2021

It is resolved in the Principal chamber to conduct workshop on Azolla Culture, Vermicompost and Organic Farming on 30-12-2021.

The following points were resolved in this meeting.

1. To conduct the workshop (Azolla Culture & Vermicompost) in coordination with CTRI Staff
2. To conduct the workshop on Organic farming with the help of J. Venkateswarlu, Expert Organic farmer of Venakatadripalem village
3. To give publicity of this programme to the near by local farmers

Head of the Department



Principal

Kandukur,
23-12-2021.

From

Department of Botany,
TRR Government Degree & PG College,
Kandukur.

To

The Principal,
TRR Government Degree & PG College,
Kandukur, Prakasam Dt.

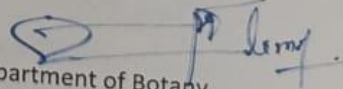
Sub: - Department of Botany – Accord permission to conduct Awareness programme to selected progressive farmers on Azolla Biofertilizer and Vermicompost Preparation – Req – Reg.

We wish to bring to your kind notice that as part of NAAC activity, Department of Botany constructed Azolla Pond and Vermicompost Unit in our college premises in association with CTRI, Kandukur. Now, Azolla growth is at optimum level therefore we are planning to organize awareness programme to farmers on 30-12-2021.

In this regard, CTRI staff would extend cooperation and support to the Department of Botany. Hence kindly permit us to organize the workshop as mentioned above.

Thanking you sir,

Yours Sincerely,


Department of Botany.

LETTER FROM THE DEPARTMENT OF BOTANY TO PRINCIPAL REQUESTING TO ACCORD THE PERMISSION FOR WORKSHOP ON AZOLLA CULTURE AND VERMICOMPOST

Kandukur,
23-12-2021.

From

The Principal,
TRR Government Degree & PG College,
Kandukur, Prakasam Dt.

To

The Director,
CTRI(RS),
Kandukur.

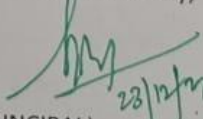
Sub: - Department of Botany – Organizing Awareness Workshop on Azolla
Biofertilizer and Vermicompost preparation to Local farmers on 30-12-2021
- Invitation to attend the programme as Chief Guest-Req-Reg.

@@@@@

As part of Extension activity of our College, our Department of Botany is going to conduct awareness programme to local farmers on Azolla Biofertilizer and Vermicompost preparation on 30-12-2021. In this connection I request you Madam to grace the programme as a Chief Guest. We further need your kind support and cooperation from your knowledgeable staff to make the programme successful.

Thanking you Madam,

Yours Sincerely,


23/12/21
(PRINCIPAL).

**LETTER TO THE CTRI DIRECTOR REQUESTING HER TO ARRANGE THE RESOURCE PERSONS FOR
AZOLLA CULTURE AND VERMICOMPOST PREPARATION**

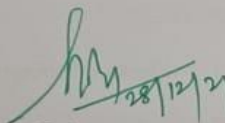
**TRR GOVERNMENT DEGREE COLLEGE, KANDUKUR
DEPARTMENT OF BOTANY**

CIRCULAR

28-12-2021

It is decided to conduct the workshop on Azolla Culture, Vermicompost and Organic farming on 30th of December 2021 by the Botany department in coordination with CTRI-RS, kandukur and J. Venkateswarlu, Expert organic farmer from venkatadripalem. All the students are instructed to attend the programme and make it successful. It is further instructed to inform the near by local farmers in your village. The progarmme is attached hereunder.

Head of the Department


Principal

CIRCULAR TO THE STAFF AND STUDENTS

TRR GOVERNMENT DEGREE & PG COLLEGE
KANDUKUR, PRAKASAM DT.

AWARENESS PROGRAMME
ON
AZOLLA BIOFERTILIZER AND VERMICOMPOST PREPARATION
(30-12-2021)

PROGRAMME SCHEDULE

- 10.30 AM Inaugural session
- 11.00 AM President Remarks
- 11.15 AM Chief Guest Remarks
- 11.20 AM Snacks time
- 11.30 AM
to Training Session – 1 (Azolla Bio fertilizer & Organic farming)
- 1.30 PM
- 1.30pm to 2.30pm: Lunch
- 2.30pm
to Training Session – 2 (Vermicomposting)
- 4.00pm
- 4.00 PM
To Interaction and Feedback Session
- 5.00pm
- 5.00 PM Vote of Thanks



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105

[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



Department of History 2018-19 Departmental Activities In charge : K.V.NAIK

S.N O	Name of the Activity	Date	Class	Topic	No. of Students Particip ated	Organized by	Vi ew
1	Co Curricular- Seminars	10.09.2018	All BA Students	Subject related	54	History	
2	Quiz	30.12.2018	All BA Studetns	2018 Current Affairs roundup	210	History	
3	Co Curricular Quiz	08.02.2019	All BA Students	Quiz	65	History	



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2018-2019

ACADEMIC ACTIVITY - SEMINAR

10/09/2018 - 15/09/2018

CLASS : I BA GROUP : H.E.P. H.E.T. DATE : 14/09 HOUR : 10
SUBJECT : HISTORY PAPER : I 2-15-2-30 TIME : 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1			
2			
3			
4			

No of Students Present :


Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	1	ch. SIREESHA	ch. sireesha.
2	16	CH. LALITHA VARSI	ch. Lalitha varsi
3	03	G. KAVYANI	G. kavani
4	3	P. HARTHA	P. Haritha
5	07	J. MAMATHA	J. Mamatha
6	25	CH. KOTESWARARAO	ch. kumar Rao
7	02	Y. DAVEEDU	Y. Daniel
8	28	K. VEERA KRISHNA	K. Veera Krishna
9	02	G. MALLIKARTUNA	G. Mallikartuna
10	04	M. SUBRAHMANYAM.	M. Subrahmanyam
11	04	M. NARESH	M. Naresh
12	30	D. SIVARAM	D. Sivaram
13	13	B. LAKSHMANRAO	B. Lakshman Rao
14	12	M. PRAVEEN KUMAR	M. praveen kumar
15	29	P. YEDUKONDALU	P. Yedukondalu
16			

Student

III BA, HISTORY - IV A PAPER



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2018 2019

SEMINAR

ACADEMIC ACTIVITY - ~~QUIZ~~ PROGRAMME

CLASS: III BA GROUP: H.E.P., H.E.T. DATE: 20/10/2018 HOUR: 10/11/2018

10/09/2018 - 15/09/2018

This is to certify that the following students have participated in Group Discussion on the topics

1) Subject Related 2) in the subject.....

Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	02	K. Anusha	K. Anusha
2	55.	K. Jeevesha	K. Jeevesha
3	89	G. Yashoda	G. Yashoda
4	101	Y. Vasundhara	Y. Vasundhara
5	82.	B. Nagaraju	B. Nagaraju
6	63	T. SAI BABA	T. Sai Baba
7	66.	P. Rama Krishna	P. Rama Krishna
8	81	V. Madhava Reddy	V. Madhava Reddy
9	74	M. Divya Chandan	M. Divya Chandan
10	112	G. SIVAJI	G. Sivaji
11	61	B. Manmadharao	B. Manmadharao
12	109	P. Babu Ramy	P. Babu Ramy
13	104	G. PAVANARA	G. PAVANARA
14	40	A. Rami Reddy	A. Rami Reddy
15	108.	P. BALA GOPAL	P. Balu Gopal
16	78	G. Brahma Reddy	G. Brahma Reddy
17	85	M. Hasi Babu	M. Hasi Babu
18	65	Ch. Gopi Kumar	Ch. Gopi
19			
20			



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2018 2019

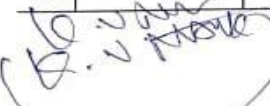
ACADEMIC ACTIVITY - QUIZ PROGRAMME

CLASS: III BSc GROUP: H.P., H.E.T. DATE: 30/12/2018 HOUR:

This is to certify that the following students have participated in Group Discussion on the topics
1) Important Dates 2) 2018 Current Affairs Round up in the subject HISTORY


Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	13	M. BABU	M. Babu 19/19
2	04	S. HARI BABU	S. Hari Babu
3	15	T. Ashok Kumar.	T. Ashok
4	06	P. Dilaga Kumar	P. Dilaga
5	04	M. CHAKRAVARTHI	M. Chakravarthi
6	18	D. JOHN PRAKASH	D. John
7	16	J. JAYARAMLI	J. Jayaramli
8	01	A Karthi Reddy	A. Karthi
9	07	Ch. Kalpana Kumari	Ch. Kalpana Kumari
10	21	G. Subramanyam	G. Subramanyam
11	08	P. SIVAPRAKASH	P. Siva
12	012	Shalini Kashin	Shalini
13	11	U. Rami	U. Rami
14	12	U. PRATHAP	U. Prathap
15	02	D. MAHESH	D. Mahesh
16	03	G. Govardhan	G. Govardhan
17	10	S. Srikant.	S. Srikant
18	06	P. YUVARAJ	P. Yuvraj
19			
20			


Signature of the Lecturer



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105. ☎ 08598 - 223546

NAAC Accredited B*

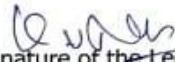
2010-11

2018-2019

ACADEMIC ACTIVITY - QUIZ PROGRAMME

CLASS : 11th GROUP : HEB HEF DATE 08/02/2019 HOUR: 1

This is to certify that the following students have participated in Quiz Programme on the topics 1) Sacramentalism 2) in the subject History


Signature of the Lecturer

Sr. No.	Roll No.	Name of the Student	Topic	Signature of the Student
1.	23	P. Saikiran		P. Saikiran
2.	19.	M. Dilip		M. Dilip
3.	30	U.V. Narayana		U.V. Narayana
4.	03	G. Vijay Babu		G. Vijay Babu
5.	04.	ch. Nalaku		ch. Nalaku
6.	21	P. Mahesh		P. Mahesh
7.	08.	G. Gopikrishna		G. Gopikrishna
8.	31	T. Kasi Venkateswarlu		T. Kasi
9.	03	B. Hrudhika		B. Hrudhika
10.	27	Sd. Musassim		Musassim
11.	06	N. Abhijith		N. Abhijith
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				



T.R.R. GOVERNMENT DEGREE COLLEGE

Kandukur, Prakasam District, Andhra Pradesh, Pincode: 523105

[Established in 1966, Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105. ☎ 08598 - 223546

NAAC Accredited B⁺

2020 - 2021

ACADEMIC ACTIVITY - ASSIGNMENT

CLASS : III B.Sc GROUP : MPC & MPCs DATE : 29/12/2020 HOUR : 1st

This is to certify that the following students have submitted their assignment in Matrices on the topic mentioned against their names.


Signature of the Lecturer

Sl. No.	Roll No.	Name of the Student	Topic	Signature of the Student
1.	19	M. Raj Kumar	MPC	M. Raj Kumar
2.	18	Ch. Sudheer Babu	MPC	Ch. Sudheer Babu
3.	15	K. Nagarjuna	(MPC)	K. Nagarjuna
4.	06	P. Varu	M.P.C.S	P. Varu
5.	02	J. Manoj Kumar	(MPC)	J. Manoj Kumar
6.	01	B. Sai	MPCs	B. Sai
7.	12	Dineh. K	MPC	Dineh. K
8.	09	K. Neelaveni	MPC	K. Neelaveni
9.	01	K. Sravani	MPC	K. Sravani
10.	09	Y. Manasa	MPCs	Y. Manasa
11.	10	Sk. Shamshun	MPC	Sk. Shamshun
12.	15	A. Manisha	MPCs	A. Manisha
13.	05	K. Saritha	MPCs	K. Saritha
14.	07	N. Bharathi	MPCs	N. Bharathi
15.	11	M. Lakshmi Prasad	MPC	M. Lakshmi Prasad
16.	03	A. Sireesha	MPC	A. Sireesha
17.	06	Ch. Premalatha	MPC	Ch. Premalatha
18.				
19.				
20.				



T.R.R. GOVT. DEGREE COLLEGE
KANDUKUR

ASSIGNMENT
DEPARTMENT OF MATHEMATICS

NAME : **P.VASU**
ROLL NO : **06**
SUBJECT : **MATHEMATICS**
GROUP : **III B.SC[MPCS]**
TOPIC : **HOMOGENEOUS & NON-
HOMOGENEOUS EQUATIONS**

SUBMITTED TO:

DR.CH.SURESH KUMAR
[M.SC,B.ED,PH.D]

SUBMITTED BY:

P.VASU

Homogeneous System of linear equations:

5

A System of m homogeneous linear equations in ' n ' unknown x_1, x_2, \dots, x_n .

$$a_{11}x_1 + a_{12}x_2 + \dots + a_{1n}x_n = 0$$

$$a_{21}x_1 + a_{22}x_2 + \dots + a_{2n}x_n = 0$$

⋮

$$a_{m1}x_1 + a_{m2}x_2 + \dots + a_{mn}x_n = 0$$

Above equations System can be represented in matrix form

we have

$$\begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ \vdots \\ 0 \end{bmatrix}$$

$$\Rightarrow AX = 0$$

where $A = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix}$; $X = \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{bmatrix}$; $\begin{bmatrix} 0 \\ 0 \\ \vdots \\ 0 \end{bmatrix}$

1. A System of equations is said to be consistent if it has a solution.

2. A System of equations is said to be inconsistent if it has no solutions.

3. The system of equation $AX=0$ is always consistence then it has a solution.

4. If $\rho(A) = n$ then the system of equation $AX=0$ has a trivial solution (zero) solutions.

5. If $\rho(A) < n$ then the system of equation $AX=0$ has a non-trivial solutions.

This system of equations have infinite number of solutions.

6. If 'A' is singular matrix then the system of equations $AX=0$ have non-zero solutions.

Ex:

1. Solve the system of equations $2x_1 - x_2 + x_3 = 0$, $3x_1 + 2x_2 + x_3 = 0$, $x_1 - 3x_2 + 5x_3 = 0$.

Given system of equations are

$$\begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix} : \begin{cases} 2x_1 - x_2 + x_3 = 0 \\ 3x_1 + 2x_2 + x_3 = 0 \\ x_1 - 3x_2 + 5x_3 = 0 \end{cases}$$

It can be written in matrix form

$$\begin{bmatrix} 2 & -1 & 1 \\ 3 & 2 & 1 \\ 1 & -3 & 5 \end{bmatrix} ; X = \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} ; O = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

$$A = \begin{bmatrix} 2 & -1 & 1 \\ 3 & 2 & 1 \\ 1 & -3 & 5 \end{bmatrix}$$

$$2R_2 - 3R_1 \begin{bmatrix} 2 & -1 & 1 \\ 0 & 7 & -1 \\ 1 & -3 & 5 \end{bmatrix}$$

$$2R_3 - R_1 \begin{bmatrix} 2 & -1 & 1 \\ 0 & 7 & -1 \\ 0 & -5 & 9 \end{bmatrix}$$

$$7R_3 + 5R_2 \begin{bmatrix} 2 & -1 & 1 \\ 0 & 7 & -1 \\ 0 & 0 & 58 \end{bmatrix}$$

\therefore The no. of non-zero rows in A is $B = P(A)$

\therefore The rank of the given matrix $P(A) =$ no. of unknowns is given matrix

\therefore Given system of equations has trivial solutions (or) zero solutions.

$$\therefore x_1 = 0, x_2 = 0, x_3 = 0.$$

2. Solve the system of equations $x + 2y - z = 0$, $2x + y + z = 0$

$$x - 4y + 5z = 0.$$

Given system of equations $x + 2y - z = 0$

$$2x + y + z = 0$$

$$x - 4y + 5z = 0$$

In matrix form $\begin{bmatrix} 1 & 2 & -1 \\ 2 & 1 & 1 \\ 1 & -4 & 5 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$

$$A = \begin{bmatrix} 1 & 2 & -1 \\ 2 & 1 & 1 \\ 1 & -4 & 5 \end{bmatrix}$$

$$\begin{array}{l} R_2 - 2R_1 \\ R_3 - R_1 \end{array} \begin{bmatrix} 1 & 2 & -1 \\ 0 & -3 & 3 \\ 0 & -6 & 6 \end{bmatrix}$$

$$R_3 - 2R_2 \begin{bmatrix} 1 & 2 & -1 \\ 0 & -3 & 3 \\ 0 & 0 & 0 \end{bmatrix}$$

No. of non-zero rows in $A = 2$

$$\therefore \rho(A) = 2$$

no. of unknowns $3 = n$

$$\therefore \rho(A) < n$$

(i) Given system of equations has non-trivial solution

(a) non-zero solutions.

It has infinite no. of solutions

$$\text{let } z = k, \quad x + 2y - 3 = 0 \quad \text{--- (1)}$$

$$-3y + 3z = 0 \quad \text{--- (2)}$$

$$-3y = -3z$$

$$y = z = k$$

$$\text{Substitute in eqn (1)} \quad x + 2k - k = 0$$

$$x + k = 0$$

$$x = -k$$

\therefore Solution $x = -k, y = k, z = k$.

Non-homogeneous System of Linear Equations:

Consider a system of 'm' non-homogeneous linear equations,

in 'n' unknown x_1, x_2, \dots, x_n

$$a_{11}x_1 + a_{12}x_2 + \dots + a_{1n}x_n = b_1$$

$$a_{21}x_1 + a_{22}x_2 + \dots + a_{2n}x_n = b_2$$

⋮

⋮

⋮

$$a_{m1}x_1 + a_{m2}x_2 + \dots + a_{mn}x_n = b_m$$

It can be represented by in the matrix form

$$\begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{bmatrix} = \begin{bmatrix} b_1 \\ b_2 \\ \vdots \\ b_m \end{bmatrix}$$

$$AX = B$$

$$A = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix} \quad X = \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{bmatrix} \quad B = \begin{bmatrix} b_1 \\ b_2 \\ \vdots \\ b_m \end{bmatrix}$$

$$\begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} & b_1 \\ a_{21} & a_{22} & \dots & a_{2n} & b_2 \\ \vdots & \vdots & \ddots & \vdots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} & b_m \end{bmatrix} \quad \text{— Argumented matrix}$$

1. If $\rho(AB) \neq \rho(A)$ then the system of given equations are inconsistent

i.e., system has no solutions.

2. If $\rho(AB) = \rho(A) = n$ then the system of given equations are consistent.

i.e., system has unique solution

3. If $\rho(AB) = \rho(A) < n$ then the system of given equations are consistent

i.e. system has infinite solutions

Ex:

1. Show that the equations $x+y+z=-3$, $3x+y-2z=-2$, $2x+4y+7z=7$ are not consistent.

Sol Given system of equations $x+y+z=-3$

$$3x+y-2z=-2$$

$$2x+4y+7z=7$$

$$A = \begin{bmatrix} 1 & 1 & 1 \\ 3 & 1 & -2 \\ 2 & 4 & 7 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} B = \begin{bmatrix} -3 \\ -2 \\ 7 \end{bmatrix}$$

$$[AB] = \begin{bmatrix} 1 & 1 & 1 & -3 \\ 3 & 1 & -2 & -2 \\ 2 & 4 & 7 & 7 \end{bmatrix}$$

$$\begin{array}{l} R_2 - 3R_1 \\ R_3 - 2R_1 \end{array} \begin{bmatrix} 1 & 1 & 1 & -3 \\ 0 & -2 & -5 & 7 \\ 0 & 2 & 5 & 13 \end{bmatrix}$$

$$R_3 + R_2 \begin{bmatrix} 1 & 1 & 1 & 3 \\ 0 & -2 & -5 & 7 \\ 0 & 0 & 0 & 20 \end{bmatrix}$$

$$\therefore \text{Rank of } [AB] = \text{no. of non-zero rows in } [AB] \\ = \rho([AB]) = 3$$

$$\text{Rank of } A = \text{no. of non-zero rows in } A \\ = \rho(A) = 2$$

$$\therefore \rho([AB]) \neq \rho(A)$$

\therefore given system of equations are not consistent.
Hence it has no solutions.

Q. Solve the system of equations $x+y+z=6$, $x+2y+3z=14$
 $x+4y+7z=30$.

Sol Given equations are

$$\begin{aligned} x+y+z &= 6 \\ x+2y+3z &= 14 \\ x+4y+7z &= 30. \end{aligned}$$

It can be written in the form of matrix

$$\begin{bmatrix} 1 & 1 & 1 \\ 1 & 2 & 3 \\ 1 & 4 & 7 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 6 \\ 14 \\ 30 \end{bmatrix} \Rightarrow AX=B$$

$$[AB] = \begin{bmatrix} 1 & 1 & 1 & 6 \\ 1 & 2 & 3 & 14 \\ 1 & 4 & 7 & 30 \end{bmatrix} \rightarrow \text{Argumental matrix}$$

$$\begin{aligned} R_2 - R_1 \\ R_3 - R_1 \end{aligned} \begin{bmatrix} 1 & 1 & 1 & 6 \\ 0 & 1 & 2 & 8 \\ 0 & 3 & 6 & 24 \end{bmatrix}$$

$$R_3 - 3R_2 \begin{bmatrix} 1 & 1 & 1 & 6 \\ 0 & 1 & 2 & 8 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$

$$\begin{bmatrix} 1 & 1 & 1 & 6 \\ 0 & 1 & 2 & 8 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$

Rank of $[AB] = \text{no. of non-zero rows in } [AB]$

$$= \rho([AB]) = 2$$

Rank of $A = \text{no. of non-zero rows in } [A] = \rho(A) = 2$

$$\therefore \rho([AB]) = \rho(A) < n \text{ (no. of unknown)}$$

\therefore System of is consistent it has infinite solutions

let $z = k$ $\Rightarrow y + 2z = 8 \quad \text{--- (2)}$ $x + y + z = 6 \quad \text{--- (1)}$

Substitute z in equ (2)

$$y + 2z = 8 \Rightarrow y + 2k = 8$$

$$y = 8 - 2k$$

Sub y and z values in equ (1)

$$x + 8 - 2k + k = 6$$

$$x + 8k = 6$$

$$x = 6 - 8k \Rightarrow x = k - 2$$

\therefore solution is $x = k - 2, y = 8 - 2k, z = k$

$$\begin{bmatrix} 1 & 1 & 1 & 6 \\ 0 & 1 & 2 & 8 \\ 0 & 0 & 0 & 0 \end{bmatrix} = [AB]$$

Solution for $A^{-1}B^{-1}$

$$\begin{bmatrix} 1 & 1 & 1 & 6 \\ 0 & 1 & 2 & 8 \\ 0 & 0 & 0 & 0 \end{bmatrix} = [AB]$$

$$\begin{bmatrix} 1 & 1 & 1 & 6 \\ 0 & 1 & 2 & 8 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR

ASSIGNMENT

DEPARTMENT OF MATHEMATICS

NAME: U.SREENIVAS

ROLL NO: 10

SUBJECT: MATHEMATICS

GROUP: III B.SC[MPCS]

**TOPIC: CHARACTERISTIC ROOTS AND
CHARACTERISTIC VECTORS**

SUBMITTED TO:

SUBMITTED BY:

DR.CH.SURESH KUMAR

U.SREENIVAS

M.SC,B.ED,PH.D

Characteristic roots and characteristic vectors

Let A be a square matrix a non-zero vector x is said to be a characteristic vector of A - IF there exists a scalar λ such that $Ax = \lambda x$

Characteristic roots is also called characteristic value or eigen root or eigen value

Characteristic vector is called eigen vector

Characteristic Polynomial

The matrix $A - \lambda I$ is called characteristic matrix of A where I is unit matrix

$$A = \begin{bmatrix} a_{11} & a_{12} & a_{13} & \dots & a_{1n} \\ a_{21} & a_{22} & a_{23} & \dots & a_{2n} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & a_{n3} & \dots & a_{nn} \end{bmatrix}$$

$$A - \lambda I = \begin{bmatrix} a_{11} - \lambda & a_{12} & a_{13} & \dots & a_{1n} \\ a_{21} & a_{22} - \lambda & a_{23} & \dots & a_{2n} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & a_{n3} & \dots & a_{nn} - \lambda \end{bmatrix}$$

$$\det(A - \lambda I) = |A - \lambda I| = \begin{vmatrix} a_{11} - \lambda & a_{12} & a_{13} & \dots & a_{1n} \\ a_{21} & a_{22} - \lambda & a_{23} & \dots & a_{2n} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & a_{n3} & \dots & a_{nn} - \lambda \end{vmatrix}$$

The polynomial $|A - \lambda I|$ is called a characteristic polynomial of A

characteristic equation: The eq $|A - \lambda I| = 0$ is called

characteristic roots equation of A

Theorem:- λ is a characteristic root of a square matrix of A

$$\Rightarrow |A - \lambda I| = 0$$

Proof $\hookrightarrow A$ is a square matrix

λ is a characteristic root of A

$\Rightarrow \exists$ a non-zero vector x such that $Ax = \lambda x$, where $x \neq 0$

$$\Rightarrow Ax = \lambda Ix$$

$$\Rightarrow Ax - \lambda Ix = 0$$

$$\Rightarrow x(A - \lambda I) = 0$$

\Rightarrow Since $x \neq 0$ we have $A - \lambda I = 0$.

$$\Rightarrow |A - \lambda I| = 0$$

Theorem:- If 0 is a characteristic root of a matrix $A \Rightarrow$ the matrix is a singular matrix

Proof $\hookrightarrow 0$ is a characteristic root of a matrix A .

$$|A - 0I| = 0$$

$$|A| = 0$$

A is a singular matrix

Problem:-

1) Find the characteristic roots (values) of the matrix $\begin{bmatrix} 5 & 4 \\ 1 & 2 \end{bmatrix}$

Sol \hookrightarrow characteristic eq of the matrix A is $|A - \lambda I| = 0$.

$$A - \lambda I = 0 \Rightarrow \begin{bmatrix} 5 & 4 \\ 1 & 2 \end{bmatrix} - \lambda \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} = 0$$

$$\Rightarrow \begin{bmatrix} 5 & 4 \\ 1 & 2 \end{bmatrix} = \begin{bmatrix} \lambda & 0 \\ 0 & \lambda \end{bmatrix}$$

$$\rightarrow \begin{bmatrix} 5 - \lambda & 4 \\ 1 & 2 - \lambda \end{bmatrix}$$

$$|A - \lambda I| = 0 \Rightarrow \begin{vmatrix} 5-\lambda & 4 \\ 1 & 2-\lambda \end{vmatrix} = 0$$

$$\Rightarrow (5-\lambda)(2-\lambda) - 4(1) = 0$$

$$\Rightarrow 10 - 5\lambda - 2\lambda + \lambda^2 - 4 = 0$$

$$\Rightarrow \lambda^2 - 7\lambda + 6 = 0$$

$$\Rightarrow \lambda^2 - 6\lambda - \lambda + 6 = 0$$

$$\Rightarrow \lambda(\lambda-6) - 1(\lambda-6) = 0$$

$$\Rightarrow (\lambda-1)(\lambda-6) = 0$$

$$\Rightarrow \lambda-1=0, \lambda-6=0$$

$$\Rightarrow \lambda=1, \lambda=6$$

\therefore characteristic roots are 1, 6.

2) Find the eigen values or characteristic roots of the matrix

$$\begin{bmatrix} 0 & 1 & 2 \\ 1 & 0 & -1 \\ 2 & -1 & 0 \end{bmatrix}$$

solⁿ $A = \begin{bmatrix} 0 & 1 & 2 \\ 1 & 0 & -1 \\ 2 & -1 & 0 \end{bmatrix}$

characteristic of the matrix is $|A - \lambda I| = 0$

$$A - \lambda I = 0 \Rightarrow \begin{bmatrix} 0 & 1 & 2 \\ 1 & 0 & -1 \\ 2 & -1 & 0 \end{bmatrix} - \lambda \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} = 0$$

$$= \begin{bmatrix} 0 & 1 & 2 \\ 1 & 0 & -1 \\ 2 & -1 & 0 \end{bmatrix} - \begin{bmatrix} \lambda & 0 & 0 \\ 0 & \lambda & 0 \\ 0 & 0 & \lambda \end{bmatrix} = 0$$

$$\Rightarrow \begin{bmatrix} -\lambda & 1 & 2 \\ 1 & -\lambda & -1 \\ 2 & -1 & -\lambda \end{bmatrix} = 0$$

$$|A - \lambda I| = 0 \Rightarrow \begin{vmatrix} -\lambda & 1 & 2 \\ 1 & -\lambda & -1 \\ 2 & -1 & -\lambda \end{vmatrix} = 0$$

$$\Rightarrow -\lambda(\lambda^2 - 1) - 1(-\lambda + 2) + 2(-1 + 2\lambda) = 0$$

$$\rightarrow -\lambda^3 + \lambda + \lambda - 2 - 2 + 4\lambda = 0.$$

$$\Rightarrow \lambda^3 - 6\lambda + 4 = 0$$

$$\rightarrow (\lambda - 2)(\lambda^2 + 2\lambda - 2) = 0$$

$$\rightarrow \lambda - 2 = 0, \lambda^2 + 2\lambda - 2 = 0$$

$$\rightarrow \lambda = 2, \lambda^2 + 2\lambda - 2 = 0.$$

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\frac{-2 \pm \sqrt{4 - 4(1)(-2)}}{2(1)}$$

$$\begin{bmatrix} 2 & 1 & 0 \\ 1 & 0 & 1 \\ 0 & 1 & -2 \end{bmatrix}$$

$$\frac{-2 \pm \sqrt{24 + 8}}{2}$$

$$\frac{-2 \pm \sqrt{32}}{2} = \frac{-2 \pm 2\sqrt{2}}{2} = -1 \pm \sqrt{2}$$

$$\lambda = 2, -1 + \sqrt{3}, -1 - \sqrt{3}$$

\(\therefore\) Eigen values are $2, -1 + \sqrt{3}, -1 - \sqrt{3}$

3) Find the characteristic roots and vectors of the given matrix

$$\begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix}$$

Solⁿ $A = \begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix}$

Characteristic of the matrix A is $|A - \lambda I| = 0$.

$$A - \lambda I = \begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix} - \lambda \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$$

$$= \begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix} - \begin{bmatrix} \lambda & 0 \\ 0 & \lambda \end{bmatrix} = \begin{bmatrix} 1 - \lambda & 4 \\ 3 & 2 - \lambda \end{bmatrix}$$

$$|A - \lambda I| = 0 \Rightarrow \begin{vmatrix} 1 - \lambda & 4 \\ 3 & 2 - \lambda \end{vmatrix} = 0$$

$$\rightarrow (1-\lambda)(2-\lambda) - 3(4) = 0$$

$$\rightarrow 2 - \lambda - 2\lambda + \lambda^2 - 12 = 0$$

$$\rightarrow \lambda^2 - 3\lambda - 10 = 0$$

$$\rightarrow \lambda^2 - 5\lambda + 2\lambda - 10 = 0$$

$$\Rightarrow \lambda^2(\lambda-5) + 2(\lambda-5) = 0 \Rightarrow (\lambda+2)(\lambda-5) = 0$$

$$\Rightarrow \lambda + 2 = 0, \lambda - 5 = 0$$

$$\Rightarrow \lambda = -2, \lambda = 5$$

characteristic roots are $-2, 5$

If $\lambda = -2$ the corresponding characteristic vector

Let $x = \begin{bmatrix} x_1 \\ x_2 \end{bmatrix}$ be the characteristic vector corresponding to the characteristic root $\lambda = -2$

$$(A - \lambda I)x = 0$$
$$\left(\begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix} - (-2) \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \right) \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} = 0$$

$$\left(\begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix} - \begin{bmatrix} -2 & 0 \\ 0 & -2 \end{bmatrix} \right) \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} = 0$$

$$\begin{pmatrix} 1+2 & 4 \\ 3 & 2+2 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

$$\begin{pmatrix} 3 & 4 \\ 3 & 4 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

$$R_2 - R_1 \begin{pmatrix} 3 & 4 \\ 0 & 0 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

Let $x_2 = k$, $3x_1 + 4x_2 = 0$

$$3x_1 + 4k = 0 \Rightarrow 3x_1 = -4k$$

$$x_1 = -\frac{4}{3}k$$

$$\begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = \begin{pmatrix} -4/3 k \\ k \end{pmatrix} = k \begin{pmatrix} -4/3 \\ 1 \end{pmatrix}$$

If $\lambda = -2$ the corresponding characteristic vector is $k \begin{pmatrix} -4/3 \\ 1 \end{pmatrix}$

If $\lambda = 5$

Let $\lambda = \begin{pmatrix} x_1 \\ x_2 \end{pmatrix}$ be the characteristic vector corresponding to the characteristic root $\lambda = 5$

$$(A - \lambda I)X = 0$$

$$\left(\begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix} - 5 \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \right) \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

$$\left(\begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix} - \begin{bmatrix} 5 & 0 \\ 0 & 5 \end{bmatrix} \right) \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

$$= \begin{pmatrix} -4 & 4 \\ 3 & -3 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

$$\begin{pmatrix} -4 & 4 \\ 3 & -3 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

$$R_1 \rightarrow -4, R_2 \rightarrow 3$$

$$\Rightarrow \begin{pmatrix} 1 & -1 \\ 1 & -1 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

$$R_2 - R_1 \begin{pmatrix} 1 & -1 \\ 0 & 0 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = 0$$

$$\text{Let } x_2 = k, x_1 - x_2 = 0 \Rightarrow x_1 - k = 0 \Rightarrow x_1 = k$$

$$\begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = \begin{pmatrix} k \\ k \end{pmatrix} = k \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

If $\lambda = 5$ the corresponding characteristic vector is $k \begin{pmatrix} 1 \\ 1 \end{pmatrix}$



T.R.R. GOVT. DEGREE COLLEGE
KANDUKUR

ASSIGNMENT
DEPARTMENT OF MATHEMATICS

NAME : **K.NAGARJUNA**
ROLL NO : **15**
SUBJECT : **MATHEMATICS**
GROUP : **III B.SC[MPC]**
TOPIC : **HOMOGENEOUS &NON-
HOMOGENEOUS EQUATIONS**

SUBMITTED TO:

DR.CH.SURESH KUMAR
[M.SC,B.ED,PH.D]

SUBMITTEDBY:

K.NAGARJUNA

Homogeneous system of linear Equations :-

(5)

A system of m homogeneous linear equations in ' n ' unknowns x_1, x_2, \dots, x_n

$$a_{11}x_1 + a_{12}x_2 + \dots + a_{1n}x_n = 0$$

$$a_{21}x_1 + a_{22}x_2 + \dots + a_{2n}x_n = 0$$

$$a_{m1}x_1 + a_{m2}x_2 + \dots + a_{mn}x_n = 0$$

above system can be represented in matrix form.

We have

$$\begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ \vdots \\ 0 \end{bmatrix}$$

$$AX = 0$$

where

$$A = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix} \quad X = \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{bmatrix} \quad 0 = \begin{bmatrix} 0 \\ 0 \\ \vdots \\ 0 \end{bmatrix}$$

- ① A system of ~~equations~~ is said to be consistent if it has a solution.
- ② A system of ~~equations~~ is said to be inconsistent if it has no solution.
- ③ The system of equations $AX=0$ is always consistent then it has a solution.

* If $P(A) = n$ then the system of equation $Ax = 0$ has a trivial solution (zero) solutions.

* If $P(A) < n$ then the system of equation $Ax = 0$ has a non-trivial solution (no-zero) solutions.

This system of equations have infinite number of solutions.

* If A is a singular matrix then the system of equations $Ax = 0$ have non-zero solutions.

problem:-

① Solve the system of equations $2x_1 - x_2 + x_3 = 0$,
 $3x_1 + 2x_2 + x_3 = 0$, $x_1 - 3x_2 + 5x_3 = 0$.

Sol:- Given system of equations are.

$$2x_1 - x_2 + x_3 = 0, \quad 3x_1 + 2x_2 + x_3 = 0, \quad x_1 - 3x_2 + 5x_3 = 0.$$

It can be written in matrix form.

$$\begin{bmatrix} 2 & -1 & 1 \\ 3 & 2 & 1 \\ 1 & -3 & 5 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

$$A = \begin{bmatrix} 2 & -1 & 1 \\ 3 & 2 & 1 \\ 1 & -3 & 5 \end{bmatrix} \cdot X = \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix}, \quad 0 = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

$$2R_2 - 3R_1, \quad 2R_3 - R_1$$

$$A = \begin{bmatrix} 2 & -1 & 1 \\ 0 & 7 & -1 \\ 0 & -5 & 9 \end{bmatrix}$$

$$7R_3 + 5R_2$$

$$A = \begin{bmatrix} 2 & -1 & 1 \\ 0 & 7 & -1 \\ 0 & 0 & 58 \end{bmatrix}$$

\therefore The no. of non-zero rows in A is $= 3 = \rho(A)$.

\therefore Rank of given matrix $\rho(A) =$ no. of unknowns in given matrix.

Given system of equations has a trivial solution or zero solution.

$$\therefore x_1 = 0, x_2 = 0, x_3 = 0.$$

②. Solve the system of equations $x + 2y - z = 0$,

$$2x + y + z = 0, \quad x - 4y + 5z = 0.$$

Sol: Given system of equations are.

$$x + 2y - z = 0, \quad 2x + y + z = 0, \quad x - 4y + 5z = 0$$

It can be written in matrix form.

$$\begin{bmatrix} 1 & 2 & -1 \\ 2 & 1 & 1 \\ 1 & -4 & 5 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

$$A = \begin{bmatrix} 1 & 2 & -1 \\ 2 & 1 & 1 \\ 1 & -4 & 5 \end{bmatrix} \quad X = \begin{bmatrix} x \\ y \\ z \end{bmatrix} \quad 0 = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

$$R_2 - 2R_1, \quad R_3 - R_1$$

$$A = \begin{bmatrix} 1 & 2 & -1 \\ 0 & -3 & 3 \\ 0 & -6 & 6 \end{bmatrix}$$

$$R_3 - 2R_2$$

$$A = \begin{bmatrix} 1 & 2 & -1 \\ 0 & -3 & 3 \\ 0 & 0 & 0 \end{bmatrix}$$

No. of non-zero rows in A is 2

$$\therefore \rho(A) = 2.$$

No. of unknown $3 = n \quad \therefore \rho(A) < n.$

\therefore Given system of equations has non-trivial solution (or) non-zero solutions.

It has infinite no. of solutions.

$$x + 2y - 1 = 0 \quad \rightarrow \textcircled{1}$$

Non-homogeneous system of linear equations:

Consider a system of m non-homogeneous linear equations in n unknowns. x_1, x_2, \dots, x_n .

$$\begin{aligned}
 a_{11}x_1 + a_{12}x_2 + \dots + a_{1n}x_n &= b_1. \\
 a_{21}x_1 + a_{22}x_2 + \dots + a_{2n}x_n &= b_2. \\
 a_{m1}x_1 + a_{m2}x_2 + \dots + a_{mn}x_n &= b_m.
 \end{aligned}$$

It can be represented in the matrix form.

$$\begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix}
 \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{bmatrix}
 =
 \begin{bmatrix} b_1 \\ b_2 \\ \vdots \\ b_m \end{bmatrix}$$

$AX = B$.

$$AB = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} & b_1 \\ a_{21} & a_{22} & \dots & a_{2n} & b_2 \\ \vdots & \vdots & \ddots & \vdots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} & b_m \end{bmatrix}$$

Augmented matrix.

* If $P(AB) \neq P(A)$ then the system of given equations are inconsistent.

i.e.: System has no solutions.

* If $P(AB) = P(A) < n$ then the system of given equations are consistent.

i.e.: System has unique solution.

* If $\rho(A|B) = \rho(A) < n$ then the system of given equations are consistent.

i.e. system has infinite solutions.

①. Show that the equations $x+y+z=3$, $3x+y-2z=-2$, $2x+4y+7z=7$ are not consistent.

Sol:- Given system of equations.

$$x+y+z=3, \quad 3x+y-2z=-2, \quad 2x+4y+7z=7.$$

It can be written in the form of matrix.

$$A = \begin{bmatrix} 1 & 1 & 1 \\ 3 & 1 & -2 \\ 2 & 4 & 7 \end{bmatrix} \quad x = \begin{bmatrix} x \\ y \\ z \end{bmatrix} \quad B = \begin{bmatrix} -3 \\ -2 \\ 7 \end{bmatrix}$$

$$Ax = B.$$

$$AB = \begin{bmatrix} 1 & 1 & 1 & -3 \\ 3 & 1 & -2 & -2 \\ 2 & 4 & 7 & 7 \end{bmatrix} \quad \text{Augmented matrix.}$$

$$R_2 - 3R_1, \quad R_3 - 2R_1$$

$$AB = \begin{bmatrix} 1 & 1 & 1 & -3 \\ 0 & -2 & -5 & 7 \\ 0 & 2 & 5 & 13 \end{bmatrix}$$

$$R_3 + R_2$$

$$AB = \begin{bmatrix} 1 & 1 & 1 & -3 \\ 0 & -2 & -5 & 7 \\ 0 & 0 & 0 & 20 \end{bmatrix}$$

\therefore Rank of $[AB] =$ No. of non zero rows in $[AB]$

$$\rho [AB] = 3.$$

Rank of $A =$ No. of non-zero rows in A $\rho(A) = 2.$

$$\therefore \rho(AB) \neq \rho(A)$$

\therefore Given system of equations are not consistent.

Hence it has ~~no~~ solutions.



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.::08598-223546

NAAC ACCREDITED B+

2020-2021

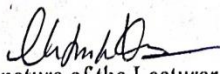
ACADEMIC ACTIVITY - ASSIGNMENT

CLASS : II B-sc GROUP : MPC & MPCs DATE : 21/12/2020 HOUR : 2nd

SUBJECT : Mathematics PAPER : III TIME : 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1			
2			
3			
4			

No of Students Present : 17


Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	13	N. Narasimha Rao, MPC	N. Narasimha Rao
2	05	P. Mahendra Babu, MPCs	P. Mahendra Babu
3	09	Y.v. Hemanth, [MPCs]	Y.v. Hemanth
4	04	K. Hari Krishna, [MPC]	K. Hari Krishna
5	03	Ch. Sivaramiah, [MPC]	Ch. Sivaramiah
6	08	V. Vineendra, [MPCs]	V. Vineendra
7	04	SK. Bahaman, [MPCs]	SK. Bahaman
8	02	Ch. Gayathri, [MPC]	Ch. Gayathri
9	19	K. Lakshmi Basanna, MPCs	K. Lakshmi Basanna
10	14	A. Oliva, [MPCs]	A. Oliva
11	10	Y. Mamatha, [MPC]	Y. Mamatha
12	17	P. Yamuna, [MPCs]	P. Yamuna
13	12	M. Lavanya, [MPC]	M. Lavanya
14	16	M. Nagendra Babu, MPCs	M. Nagendra Babu
15	17	K. Mahesh, MPCs	K. Mahesh
16	22	B. Deepthi, MPCs	B. Deepthi

S.No.	Roll No.	Name of the Student	Signature of the Student
17	17	D. Ramanjalah, MPC	D. Ramanjalah
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			

T RR GOVERNMENT DEGREE COLLEGE, KANDUKUR

DEPARTMENT OF MATHEMATICS

ASSIGNMENT

NAME : P. MAHENDRA BABU

ROLL NO : 05

CLASS : II BSC(CS)

TOPIC : GROUPS

SUBMITTED BY

P. MAHENDRA BABU

SUBMITTED TO

Dr. CH. SURESH KUMAR SIR

5

Group: Let G_1 be a non empty subset and $*$ be a binary operation on G_1 . then $(G_1, *)$ is said to be a group if

(1) Associative law:- $(a*b)*c = a*(b*c) ; \forall a, b, c \in G_1$

(2) Identity law:- $\forall a \in G_1 \exists e \in G_1 \exists a*e = e*a = a$
where 'e' is the identity element in G_1

(3) Inverse law:- $\forall a \in G_1 \exists b \in G_1 \exists a*b = b*a = e$
where 'b' is the inverse element
 $\forall a, b \in G_1$ then $a*b \in G_1$

(4) Closure law:- $\forall a, b \in G_1$ then $a*b \in G_1$
Ex:- $(\mathbb{Z}, +)$, $(\mathbb{Q}, +)$, $(\mathbb{R}, +)$ are groups

show that the set \mathbb{Q}^+ of all positive rational numbers forms a commutative group under the composition defined by 'o' such that $a \circ b = \frac{ab}{3}$

Given that \mathbb{Q}^+ is the set of all positive rational numbers, 'o' is the operation defined by $a \circ b = \frac{ab}{3}$

(i) Closure law:- Let $a, b \in \mathbb{Q}^+$

$$\text{Then } a \circ b = \frac{ab}{3} \in \mathbb{Q}^+$$

'o' is a binary operation on \mathbb{Q}^+

i.e. \mathbb{Q}^+ is closed w.r.t 'o'.

(ii) Associative law:- Let $a, b, c \in \mathbb{Q}^+$

$$(a \circ b) \circ c = \left(\frac{ab}{3}\right) \circ c = \frac{\left(\frac{ab}{3}\right)c}{3} = \frac{abc}{9}$$

$$a \circ (b \circ c) = a \circ \left(\frac{bc}{3}\right) = \frac{a\left(\frac{bc}{3}\right)}{3} = \frac{abc}{9}$$

from these two we have $(a \circ b) \circ c = a \circ (b \circ c)$

$\therefore \mathbb{Q}^+$ is associative w.r.t 'o'.

(iii) Identity law:- Let $a \in \mathbb{Q}^+$ and $e \in \mathbb{Q}^+$

If e is the identity element then

$$a \circ e = a$$

$$\frac{ae}{3} = a \Rightarrow e = 3 \in \mathbb{Q}^+$$

$\therefore 3$ is the identity element in \mathbb{Q}^+

(v) Inverse law: - let $a \in \mathbb{Q}^+$ and $b \in \mathbb{Q}^+$

The identity element = $e = 3$

If b is the inverse element of a then

$$a \cdot b = e$$

$$ab/3 = 3 \Rightarrow b = 9/a \in \mathbb{Q}^+$$

$\therefore 9/a$ is the inverse of a in \mathbb{Q}^+

$\therefore \mathbb{Q}$ is commutative w.r. to'

Hence (\mathbb{Q}^+, \cdot) is a commutative group.

Show that the set $G = \left\{ \begin{pmatrix} \cos \theta & -\sin \theta \\ \sin \theta & \cos \theta \end{pmatrix} ; \theta \in \mathbb{R} \right\}$ is a group under matrix multiplication is it commutative?

Clearly $G = \left\{ \begin{pmatrix} \cos \theta & -\sin \theta \\ \sin \theta & \cos \theta \end{pmatrix} ; \theta \in \mathbb{R} \right\}$ is non empty

Let $A_\alpha = \begin{pmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{pmatrix} \in G$ and

$A_\beta = \begin{pmatrix} \cos \beta & -\sin \beta \\ \sin \beta & \cos \beta \end{pmatrix} \in G$

(i) Closure Law $\therefore A_\alpha \cdot A_\beta = \begin{pmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{pmatrix} \begin{pmatrix} \cos \beta & -\sin \beta \\ \sin \beta & \cos \beta \end{pmatrix}$

$$= \begin{pmatrix} \cos \alpha \cdot \cos \beta - \sin \alpha \sin \beta & -(\cos \alpha \sin \beta + \sin \alpha \cos \beta) \\ \sin \alpha \cdot \cos \beta + \cos \alpha \sin \beta & \cos \alpha \cos \beta - \sin \alpha \sin \beta \end{pmatrix}$$

$$= \begin{pmatrix} \cos(\alpha + \beta) & -\sin(\alpha + \beta) \\ \sin(\alpha + \beta) & \cos(\alpha + \beta) \end{pmatrix} = A_{\alpha + \beta} \in G$$

\therefore Matrix multiplication is a binary operation in G
i.e. G is closed w.r.t matrix multiplication

If $G = \mathbb{Q} - \{0\}$ and $*$ is defined as $a * b = a + b - ab$
then that prove in $(G, *)$ is an abelian group.

G is clearly non empty.

(i) Closure law: - Let $a, b \in G$
then $a * b = a + b - ab \in G$

Then $a * b$ is a binary operation on G
i.e G is called w.r.t $*$

(ii) Associative law: - Let $a, b, c \in G$

$$\begin{aligned} a * (b * c) &= a * (b + c - bc) = a + b + c - bc - a(b + c - bc) \\ &= a + b + c - bc - ab - ac + abc \end{aligned}$$

$$\begin{aligned} (a * b) * c &= (a + b - ab) * c \\ &= a + b - ab + c - (a + b - ab)c \\ &= a + b + c - ab - bc - (a + abc) \end{aligned}$$

from these two we have $a * (b * c) = (a * b) * c$

$\therefore G$ is associative w.r.t $*$

(iii) Identity law: - Let e be a identity element of G

Then $a * e = a \quad \forall a \in G$

$$a + e - ae = a$$

$$\Rightarrow e(1-a) = 0 \Rightarrow e = 0$$

$\therefore e$ is the identity element in G

(iv) Inverse law: - Let $a \in G$

If b is the inverse element of a then

$$a * b = e \Rightarrow a + b - ab = 0$$

$$\Rightarrow b(1-a) = -a$$

$$\Rightarrow b = \frac{a}{a-1} \in G$$

$\therefore \frac{a}{a-1}$ is the inverse of a in G

(ii) Associative law: - Let $A_\alpha, A_\beta, A_\gamma \in G$

$$\begin{aligned}(A_\alpha \cdot A_\beta) A_\gamma &= A_{\alpha+\beta} \cdot A_\gamma = A_{(\alpha+\beta)+\gamma} \\ &= A_{\alpha+(\beta+\gamma)} = A_\alpha \cdot A_{\beta+\gamma} \\ &= A_\alpha (A_\beta A_\gamma)\end{aligned}$$

$\therefore G$ is associative w.r.t multiplication

(iii) Identity law: - clearly $A_0 = \begin{bmatrix} \cos 0 & -\sin 0 \\ \sin 0 & \cos 0 \end{bmatrix}$

$$= \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} = I \in G$$

If $A_\alpha \in G$ then $A_\alpha A_0 = A_{\alpha+0} = A_\alpha$ and

$$A_0 A_\alpha = A_{0+\alpha} = A_\alpha$$

$\therefore A_0 = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ is the identity element in G

(iv) Inverse law: - Let $A_\alpha \in G$

Since $\alpha \in \mathbb{R} \Rightarrow -\alpha \in \mathbb{R}$ and hence $A_{-\alpha} \in G$

$$\text{Also } A_\alpha \cdot A_{-\alpha} = A_{\alpha+(-\alpha)} = A_0 \text{ and}$$

$$A_{-\alpha} \cdot A_\alpha = A_{(-\alpha)+\alpha} = A_0$$

$\therefore A_{-\alpha}$ is the inverse of element of A_α in G

(v) Commutative law: - Let $A_\alpha, A_\beta \in G$

$$A_\alpha \cdot A_\beta = A_{\alpha+\beta} = A_\beta \cdot A_\alpha$$

$\therefore G$ is commutative w.r.t multiplication

Hence G is a commutative group.

Theorem: Let (G, \cdot) be a group. If $a, b \in G$ then $(ab)^{-1} = b^{-1}a^{-1}$

of Given that (G, \cdot) is a group

$$a \in G \Rightarrow a^{-1} \in G \text{ such that } aa^{-1} = a^{-1}a = e$$

$$b \in G \Rightarrow b^{-1} \in G \text{ such that } bb^{-1} = b^{-1}b = e$$

$$(ab)(b^{-1}a^{-1}) = a(bb^{-1})a^{-1}$$

$$= a(e)a^{-1}$$

$$= aa^{-1}$$

$$= e \rightarrow \textcircled{1}$$

$$(b^{-1}a^{-1})(ab) = b^{-1}(a^{-1}a)b$$

$$= b^{-1}(e)b$$

$$= b^{-1}b$$

$$= e \rightarrow \textcircled{2}$$

$$\text{from } \textcircled{1} \& \textcircled{2} \quad (ab)(b^{-1}a^{-1}) = (b^{-1}a^{-1})(ab) = e$$

$$= b^{-1}a^{-1} = (ab)^{-1}$$

$$= (ab)^{-1} = b^{-1}a^{-1}$$

Theorem:- If G is a group and $a, b \in G$ then the eqns $ax=b$ and $ya=b$ have unique solutions in G .

Proof:- Given that

G is a group

$$a, b \in G \Rightarrow a^{-1}, b^{-1} \in G$$

$$a^{-1} \in G, b \in G \Rightarrow a^{-1}b \in G \text{ and } ba^{-1} \in G$$

$$(i) a(a^{-1}b) = (aa^{-1})b = eb = b$$

$\therefore a^{-1}b$ is a solution of $ax=b$

Suppose x_1, x_2 are two solutions in G

Then $ax_1 = b$ and $ax_2 = b$

$$\Rightarrow ax_1 = ax_2 \Rightarrow x_1 = x_2$$

$\therefore ax = b$ has unique solutions in \mathbb{Q}

(ii) $(ba^{-1})a = b(a^{-1}a) = be = b$

$\therefore ba^{-1}$ is a solution of $ya = b$

Suppose y_1, y_2 are two solutions of $ya = b$

then $ya = b$ has unique solutions in \mathbb{Q} .



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur, Prakasam District, Andhra Pradesh, Pincode: 523105

[Established in 1966, Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



T.R.R Govt Degree college
- Kandukur

Subject: ¹⁰ URDU Department Activities (2017-2018)

Page No: 11

S.No	Date	Conducted Through	Name of the Activities	Title of the Activity	Name of the lecturer involved	Details of Resource person	No. of students participated
1	21/8/17	Department seminar		Toba lake Singh	Sd Khadar Bala	Sd. Salma Bani	30
2	29/7/17	Department quiz		meer aur Galib	Sd Khadar Bala	BA-Bcom	20
3	21/8/17	Department Group discussion		Vall dila	Sd Khadar Bala	B.Sc	20
4	5/1/18	Department Guest lecture		share maj Akbar nikat	Sd Khadar Bala	sk Mahabab	30
5	21/2/18	Department Assignments		khaderda	Sd Khadar Bala	BA Bcom Bsc	20

24

2017 - 2018

Topic :- seminar



Name of the Topic :- Toba Take Singh

students

:- BSc, BA, B-com



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2017-2018

ACADEMIC ACTIVITY -

CLASS : I GROUP : BSc DATE : HOUR : III
SUBJECT : URDO PAPER : I TIME : 15min.

No.	Roll No.	Name of the Student	Signature of the Student
1		Seminar	MD. Salma Banu
2			
3		M.D. Salma Banu	
4			

No of Students Present :

Sd Khadar Baki
Signature of the Lecturer

No.	Roll No.	Name of the Student	Signature of the Student
1		k. Mounika	k. mounika
2		sk. soniya	sk. soniya
3		sk. Fabeena	sk. Fabeena
4		Sk. Mazhar unisa	Sk. Mazhar unisa
5		Sk. Sultan Rasha	Sk. Sultan Rasha
6		sk. Nowsheen	sk. Nowsheen
7		Ch. sailaja	Ch. sailaja
8		L. Abhishek	L. Abhishek
9		MD. salma	MD. salma
10		sk. Mubeena	sk. mubeena
11		sk. Mabjani	sk. mabjani
12		sk. sharoni poja	sk. Sharoni poja
13		k. Jaikiran	k. Jaikiran
14		sk. Firoz	sk. Firoz
15		Revanth	ReVanth
16			

2016 - 2017

18

Topic :- Quiz



Name of the Topic :- Drama.

Students :- B.S.c , BA BCom



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.::08598-223546

NAAC ACCREDITED B+

2016-2017

16

ACADEMIC ACTIVITY -

CLASS : I GROUP : B.A B.com DATE : HOUR : II

SUBJECT : URDU PAPER : I TIME : 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1		Quiz	Sk. Karimullah
2			
3			
4			

No of Students Present :

Sk. Khasan B
Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1		B. sumanth	B. sumanth
2		B. mallo karisuna	B. mallo karisuna
3		P. siva krishna	P. siva krishna
4		sk. Karimullah	SK. Karimullah
5		sk. shariif	sk. shariif
6		sk. Ravi	sk. Ravi
7		SD. uzair	SD. uzair
8		sk. Rasool Basha	sk. Rasool Basha
9		SD. MUZASSIM	SD. Muzassim
10		sk. Hafeez	sk. Hafeez
11		sk. Farida	sk. Farida
12		sk. Karim Basha	sk. Karim Basha
13		sk. Parveen	sk. Parveen
14		sk. Subhani Basha	sk. Subhani Basha
15			
16			

18

2017 - 2018

Topic :- Group discussion



Name of the Topic :- Vali Dakami

Students :- Bsc, BA, Bcom



I.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.:08598-223546

NAAC ACCREDITED B+

2017-2018

ACADEMIC ACTIVITY -

CLASS : I GROUP : B.Com DATE : HOUR : I
SUBJECT : URDU PAPER : I TIME : 15min.

No.	Roll No.	Name of the Student	Signature of the Student
1		Group discussion	sk. Rehman
2			
3			
4			

No of Students Present :

Sd. Khadar Basha
Signature of the Lecturer

No.	Roll No.	Name of the Student	Signature of the Student
1		sk. Rehman	sk. Rehman
2		sk. Nagorbi	sk. Nagorbi
3		sk. Abdul Gaffar	sk. Abdul Gaffar
4		sk. Nagor Basha	sk. Nagor Basha
5		sk. Mansoor Basha	sk. Mansoor Basha
6		sk. Sreenu Basha	sk. Sreenu Basha
7		k. Moulika	k. Moulika
8		sk. soniya	sk. soniya
9		sk. fabeena	sk. fabeena
10		sk. Mazharunisa	sk. Mazharunisa
11		sk. Nowshah	sk. Nowshah
12		sk. Sultan Basha	sk. Sultan Basha
13		L. Abhishek	L. Abhishek
14		Ch. Sailaja	Ch. Sailaja
15		MD. Salma	MD. Salma
16			

2017-2018
Department of Urdu
Guest Lecture

DATE: 11/6/11/2018

Guest Lecture by: SK Mahabub
Lecturer in Urdu

D.K.W Govt Degree College
SPSR Nellore, Dt.

TOPIC: Shaeri Me Aham Mukath.



Sd Khadar Basha
Lecturer in Urdu



T.R.K. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.::08598-223546

NAAC ACCREDITED B+

2017-2018

ACADEMIC ACTIVITY -

COURSE : I GROUP : B.Sc., B.A., B.Com DATE : 6/1/2018 HOUR : 11

SUBJECT : U.R.D.U. PAPER : I TIME : 15min.

No.	Roll No.	Name of the Student	Signature of the Student
1		Guest lecture	
2			
3		SK "Shahreen basha"	
4		SK Mahabob basha	SK. mahabob basha

Number of Students Present :

SK Khadar Basha
Signature of the Lecturer

No.	Roll No.	Name of the Student	Signature of the Student
1		SK. Mubeena	SK. Mubeena
2		SK. Mabjani	SK. Mabjani
3		SK shauou Roja	SK. shauou Roja
4		K. Jai Kiran	K. Jai Kiran.
5		SK. floz	SK. floz
6		Rajani	Rajani
7		Revanth	Revanth
8		SK. Rehman	SK. Rehman
9		SK. Nagarai	SK. Nagarai
10		SK. Abdul Gaffar	SK. Abdul Gaffar
11		SK. Nagoor Balha	SK. Nagoor Balha
12		SK. Mansoor Balha	SK. Mansoor Balha
13		SK. Sreenu Balha	SK. Sreenu Balha
14		K. mounika	K. mounika
15		SK. Soniya	SK. Soniya
16			



T.R.R. GOVERNMENT DEGREE COLLEGE

Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105

[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



టి ఆర్. ఆర్. ప్రభుత్వ డిగ్రీ కళాశాల, కందుకూరు

తిలుగు శాఖ

22-7-2021

తిలుగు విభాగం ఆధ్వర్యంలో ఈ రోజు అనగా తేదీ 22-7-2021 తరగతి గది 38 నందు అతిథి ఉపన్యాసం ఏర్పాటు చేయడం మైనది. రంగాప్తల నటులు, నంది అవార్డు గ్రహీత శ్రీ ఎస్. ఏసుదాసు గారు "తిలుగు నాటక రంగం - స్వీయ అనుభవాలు" అనే అంశం పై ప్రసంగిస్తారు. కావున అధ్యాపక సిబ్బంది మరియు విద్యార్థిని విద్యార్థులందరూ హాజరు కావాల్సిందిగా కోరడమైనది.

సుకు
తిలుగు శాఖాధిపతి

కళాశాల ప్రధానాచార్యులు

వె. సుధాకరణి
తిలుగు అధ్యాపకులు

J. Hegde

UP
C. S. Reddy

టి ఆర్. ఆర్. ప్రభుత్వ డిగ్రీ కళాశాల , కందుకూరు

తెలుగు శాఖ

అతిథి ఉపన్యాసం : - ఎస్. యేసుదాస్ 22-7-2021

AIMS & OBJECTIVES :-

నంది అవార్డు గ్రహీత ఎస్. యేసుదాస్ గారిచే తెలుగు నాటక రంగాన్ని గురించి - నాటక రంగంలో వారి అనుభవాలను గురించి ఉపన్యాసం ఇప్పించడం ద్వారా విద్యార్థులకు తెలుగు నాటక రంగాన్ని గురించి అవగాహన కలుగుతుంది .

REPORT :-

నంది అవార్డు గ్రహీత నాటక రచయిత ఎస్. యేసుదాస్ గారు తెలుగు నాటక రంగాన్ని గురించి సవిస్తరంగా సవివరంగా విద్యార్థులకు తెలియజేస్తూ నాటక రంగానికి చెందిన స్వీయ అనుభవాలన్నెంటినో విద్యార్థులతో పంచుకున్నారు . విద్యార్థులందరిని తమ ఇంటికి వచ్చి నాటక రంగంలో తనకున్న అనుభవాలకు సంబంధించిన ఫోటో గ్యాలరీని మరియు అవార్డులను సందర్శించమని ఆహ్వానించారు . ఆ మేరకు విద్యార్థులను ఫీల్డ్ ట్రైప్ క్రింద వారింటికి తీసుకువెళ్లడం , వాటిని చూపించడం ద్వారా విద్యార్థులలో స్ఫూర్తిని నింపడం జరిగింది . కార్యక్రమంలో తెలుగు విభాగాధిపతి మరియు అధ్యాపకులు డాక్టర్ సురేష్ కుమార్ , వై . సుదాకర బాబులు పాల్గొన్నారు .

OUTCOMES;

విద్యార్థులకు నాటక రంగాన్ని గురించి , నటులను గురించి , అభినయాన్ని గురించి అవగాహన పొందుతారు .

Khyathar

T.R.R. GOVERNMENT DEGREE COLLEGE, KANDUKUR

DEPARTMENT OF TELUGU

GUEST LECTURE -22-7-2021

SL.NO	NAME OF THE STUDENT	CLASS	FEEDBACK	SIGNATURE
1.	V. Parabhudeva	1 st B.com	బాగుంది.	V. Parabhudeva
2.	V. Dattastroya	I B.com	తీర్మానం బాగుంది.	V. Dattastroya
3.	J. Karunakar	I B.com	బాగుంది.	J. Karunakar
4.	G. mahesh	I B.com	తీర్మానం బాగుంది.	G. mahesh
5.	J. Kiran	I B.com	బాగుంది.	J. Kiran
6.	K. Nagaraju	I B.com	బాగుంది బాగుంది	K. Nagaraju
7.	M. Vinay	I B.com	తీర్మానం బాగుంది	M. Vinay
8.	J. Avinash	I B.com	బాగుంది.	J. Avinash
9.	Y. Manoj	I B.com	తీర్మానం బాగుంది	Y. Manoj
10.	Ch. Srihar Reddy	I B.com	బాగుంది	Ch. Srihar Reddy
11.	J. Venu gopal	I B.com	Excellent	J. Venu gopal
12.	J. Jeevan	I B.com	తీర్మానం బాగుంది	J. Jeevan
13.	B. Kati swami	I B.com	తీర్మానం బాగుంది	B. Kati swami
14.	Ch. Nithin	I B.com	బాగుంది.	Ch. Nithin
15.	M. Madhu	I B.com	బాగుంది	M. Madhu
16.	K. Suma	I B.com	బాగుంది.	K. Suma
17.	K. Nandhini	I B.com	బాగుంది.	K. Nandhini
18.	G. Mani kumar	I B.com	తీర్మానం బాగుంది	G. Mani kumar
19.	G. Vinay	I B.com	బాగుంది	G. Vinay
20.	M. Vamsi	I B.com	బాగుంది	M. Vamsi
21.	K. Venu Kiran	I B.com	బాగుంది	K. Venu Kiran
22.	K. Prasanna	I B.com	Excellent Program	K. Prasanna
23.	Ch. Bhargavi	I B.com	తీర్మానం బాగుంది.	Ch. Bhargavi
24.	M. Esuvarani	I B.com	బాగుంది.	M. Esuvarani
25.	T. Siddhartha	I B.com	తీర్మానం బాగుంది.	T. Siddhartha
26.	D. Naveen	I B.com	బాగుంది.	D. Naveen
27.	G. Sai	I B.com	బాగుంది	G. Sai
28.	sd. Bashree	I B.com	బాగుంది.	sd. Bashree
29.	T. Kalyan	I B.com	బాగుంది.	T. Kalyan
30.	G. Gopi Reddy	I B.com	బాగుంది.	G. Gopi Reddy
31.	Ch. Manohar	I B.com	బాగుంది	Ch. Manohar



GUEST LECTURE - 22-07-2021





T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur, Prakasam District, Andhra Pradesh, Pincode: 523105

[Established in 1966, Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.: 08598-223546

NAAC ACCREDITED B+

2021 - 2022

ACADEMIC ACTIVITY - SEMINAR

CLASS: 1st Yr B.A GROUP: B.Sc. M.P.E.S. D.S.S. DATE: 15/10/21 HOUR:

SUBJECT: Parabola Solving PAPER: TIME: 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1	Y213037044	K. Nivas	K. Nivas
2	Y213037043	K. Tanardhan	K. Tanardhan
3	Y213037035	B. Anantha	B. Anantha
4	Y213037049	T. Madhusima	T. Madhusima
5.	Y213037037	B. Kowsalya	B. Kowsalya
6.	Y213037048	S. Venkata Ramana Reddy	S. Venkata Ramana Reddy

No of Students Present:

S.No.	Roll No.	Name of the Student	Signature of the Student
1	Y203037060	P. Pratyusha	P. Pratyusha
2	Y203037055	M. Kusuma	M. Kusuma
3	Y203037065	V. Priyanka	V. Priyanka
4	Y203037051	D. Sudha Rao	D. Sudha Rao
5	Y203037030	G. Manohar	G. Manohar
6	Y203037064	T. Naga Varalakshmi	T. Naga Varalakshmi
7	Y203037066	Venu Priyanka	Venu Priyanka
8	Y213037045	L. Viray Kumar	L. Viray Kumar
9	Y213037042	K. Venkateswarlu	K. Venkateswarlu
10	Y213037050	D. Sai Rahul	D. Sai Rahul
11	Y213037054	A. P. V. Sai Praneeeth	A. P. V. Sai Praneeeth
12	Y213037055	B. Sabithi	B. Sabithi
13	Y213037064	K. Pranathi	K. Pranathi
14	Y213037053	A. Manjula	A. Manjula
15	Y213037056	B. Anrutha	B. Anrutha
16			



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105

[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



Name of the Student : K.Nivas

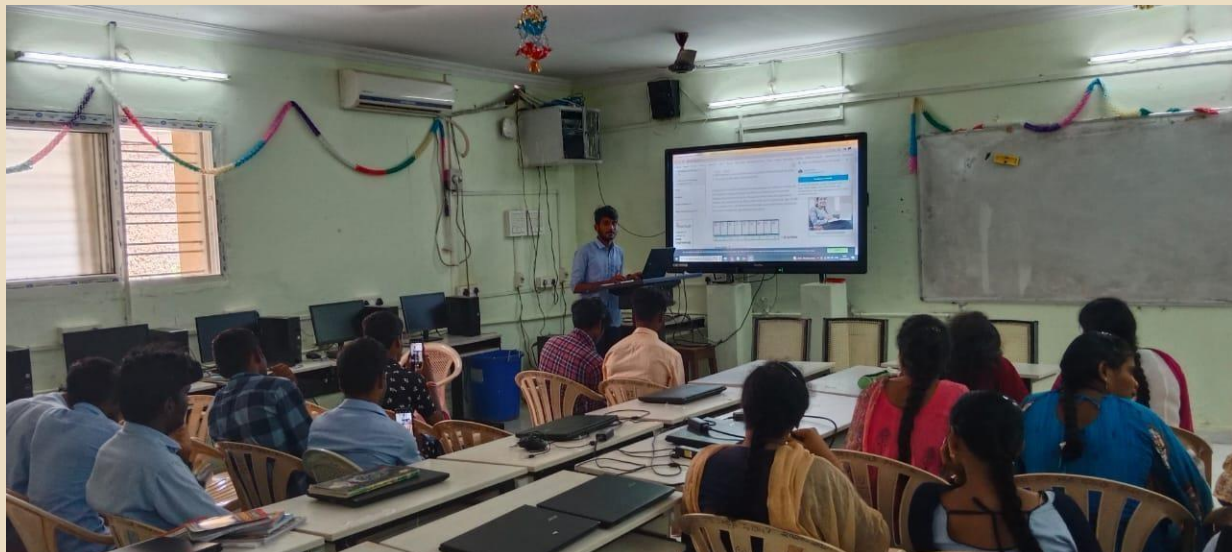
Year & Group : I-B.Sc(DSCS)

Topic Name : Arrays in C

No. of Students Participated: 21

Abstract :

Arrays in C are derived data types containing similar data-type elements. In one-dimensional arrays in C, indexing starts from 0 and ends at size-1, and if we try to access an element out of range, it will return garbage value.





T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : J.Janardhan

Year & Group : I-B.Sc(DSCS)

Topic Name : Data types in C

No. of Students Participated: 21

Abstract :

Data type is an attribute associated with a piece of data that tells a computer system how to interpret its value. Understanding data types ensures that data is collected in the preferred format and the value of each property is as expected.





T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : S.Venkata Ramana Reddy

Year & Group : I-B.Sc(DSCS)

Topic Name : Functions in C

No. of Students Participated: 21

Abstract :

- Functions are a set of reusable codes which perform a specified task on the parameters passed to them when they are called.
- Structure-function can be used to write code effectively.
- The structure can be passed as a parameter to the function.
- An entire structure can be passed to a function, or individual members of the structure can be passed into the function.





T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : B.Kowsalya

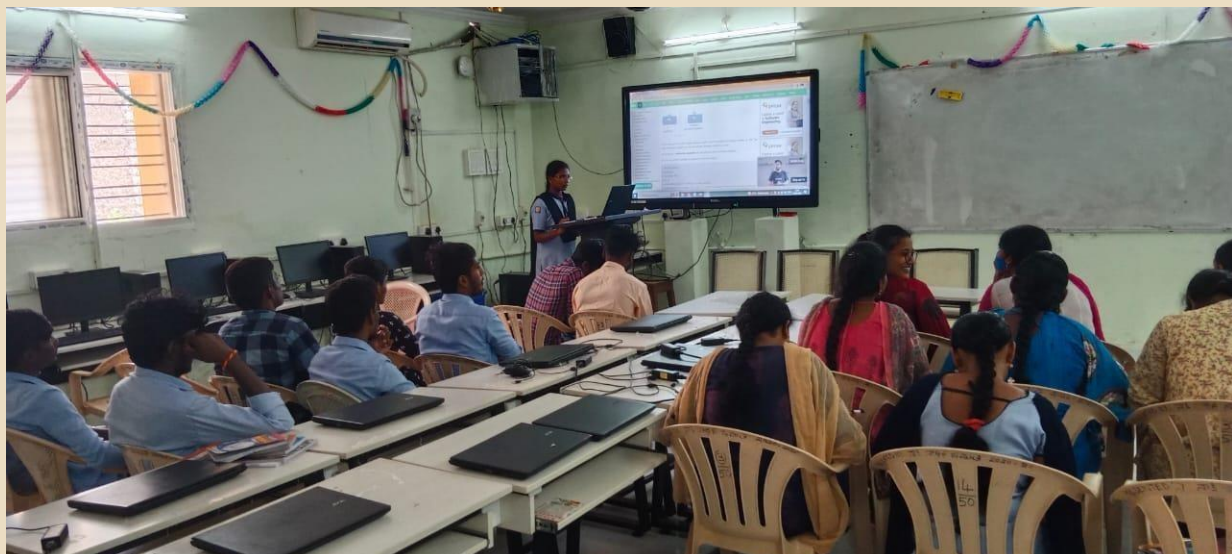
Year & Group : I-B.Sc(DSCS)

Topic Name : Pointers in C

No. of Students Participated: 21

Abstract :

- A pointer is a variable whose value is the address of another variable of the same type.
- The value of the variable that the pointer points to by dereferencing using the * operator.
- The different types of pointers are void, null, dangling, wild, near, far, huge.





T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : B.Amrutha

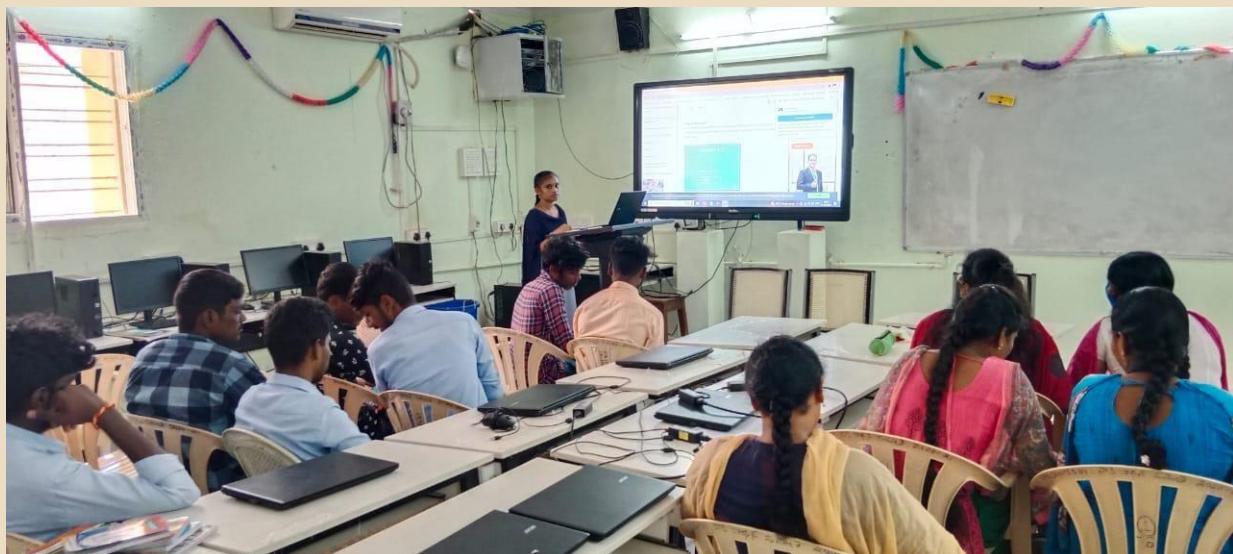
Year & Group : I-B.Sc(DSCS)

Topic Name : Structures in R

No. of Students Participated: 21

Abstract :

Structures to overcome the drawback of arrays. We already know that arrays in C are bound to store variables that are of similar data types. Creating a structure gives the programmer the provision to declare multiple variables of different data types treated as a single entity.





T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : T.Madhurima

Year & Group : I-B.Sc(DSCS)

Topic Name : Conditional Statements in C

No. of Students Participated: 21

Abstract :


Conditional statements are used through the various programming languages to instruct the computer on the decision to make when given some conditions. These decisions are made if and only if the pre-stated conditions are either true or false, depending on the functions the programmer has in mind.





T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



 **T.R.R. GOVT. DEGREE COLLEGE**
KANDUKUR - 523 105. ☎ 08598 - 223546
NAAC accredited B⁺

2021 - 2022
ACADEMIC ACTIVITY - SEMINAR

CLASS : II BSC GROUP : MPC P.Ses : DATE : 15/12/2021 HOUR :
SUBJECT : Data Base Management System PAPER : TIME : 15 min.

Sr. No.	Roll No.	Name of the Student	Seminar Topic	Signature of the Student
1.	Y203037060	P. Pratyusha	Building blocks	P. Pratyusha
2.	Y203037064	T. Nagalakshmi	SQL commands	T. Vasa Lakshmi
3.	Y203037051	D. Sudhakar	ER Models	D. Sudhakar
4.	Y203037055	M. Kusuma	Attributes	M. Kusuma
5.	Y203037030	G. Maushee	R. DBMS	G. Maushee
6.	Y203037065	V. Priyanka	Entities	V. Priyanka

No. of Students Present : _____
Signature of the Lecturer : T. Hare

Sr. No.	Roll No.	Name of the Student	Signature of the Student
1.	Y203037066	Venu. priyanka	v. priyanka
2.	Y203037028	A. Mahendra	A. Mahendra
3.	Y203037029	Mahendra D	Mahendra D
4.	Y203037032	K. Raj Kumar	Raj Kumar
5.	Y213037048	S. Venkata Ramana Reddy	S. Venkata Ramana Reddy
6.	Y213037042	K. Venkateswarlu	K. Venkateswarlu
7.	Y213037045	L. Vinay Kumar	L. Vinay Kumar
8.	Y213037049	T. Madhusima	T. Madhusima
9.	Y213037034	B. Kowsalya	B. Kowsalya
10.	Y213037044	K. Nivas	K. Nivas
11.	Y213037035	B. Anantha	B. Anantha
12.	Y213037041	K. Pavan Kumar	K. Pavan Kumar
13.	Y213037043	K. Tanardhan	K. Tanardhan
14.	Y213037039	Ch. Mamatha	Ch. Mamatha
15.	Y213037050	O. Sai Rahul	O. Sai Rahul
16.	Y213037054	A.p.v. Sai praneth	A.p.v. Sai praneth



T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincod:523105
[Established in 1966,Re-Accredited with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : P.Pratyusha

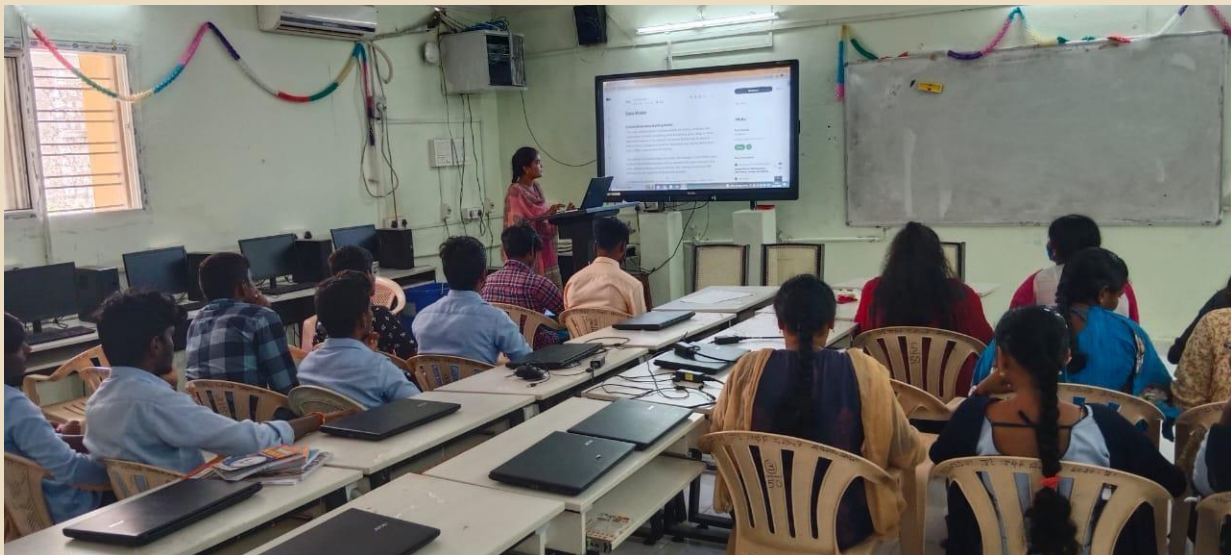
Year & Group : II -B.Sc(MPCS)

Topic Name : Basic Building Blocks in DBMS

No. of Students Participated: 21

Abstract :

- A data model is a structure of the data that contains all the required details of the data like the name of the data, size of the data, relationship with other data and constraints that are applied on the data. It is a communication tool.
- A data model is essential in order to store the database in a sorted manner. It will provide the interaction between the system analyst, designer and application programmer. It improves the understanding of designing of the database in which the organization is interested.





T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accreditedated with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : T.Naga Varalakshmi

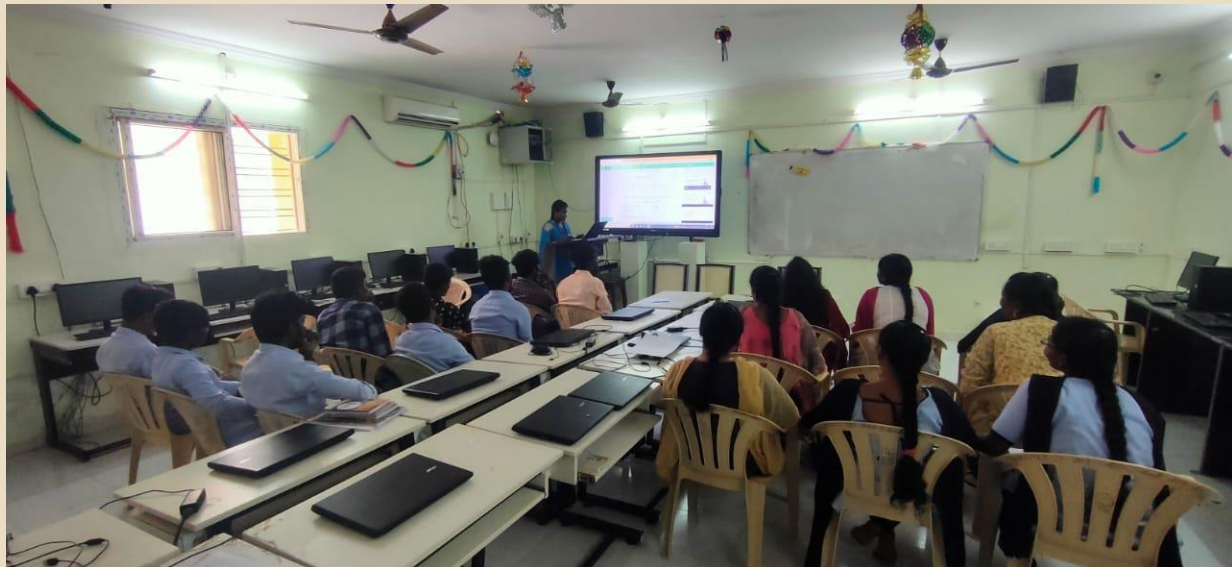
Year & Group : II -B.Sc(MPCS)

Topic Name : SQL Commands in DBMS

No. of Students Participated: 21

Abstract :

The breadth and scope of the SQL commands provide the capability to create and manipulate a wide variety of database objects using the various CREATE, ALTER, and DROP commands. Those database objects then can be loaded with data using commands such as INSERT.





T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accreditedated with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : D.Sudhakar

Year & Group : II -B.Sc(MPCS)

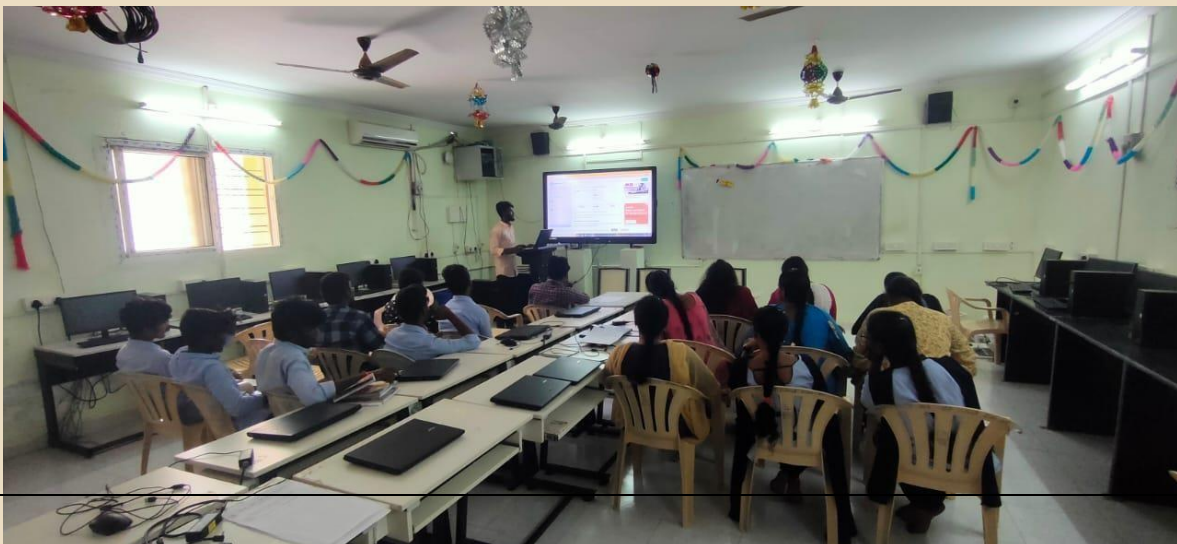
Topic Name : EER Models in DBMS

No. of Students Participated: 21

Abstract :

The enhanced ER model is an abbreviation for Enhanced Entity-Relationship (EER) model. As you know, the entity-relationship (ER) model is a pictorial illustration of the relationship between various entities of a domain. In the case of a large amount of data with multiple interrelated entities, the ER diagrams become complex and tough to interpret. For such cases, the need for enhancement in the ER model was observed, and thus, the EER model was designed.

The EER model is an enhancement or extension of the ER model. EER was designed to represent complex database problems of engineering, telecommunication, geographic information systems, and complex software systems. EER diagrams are used for modeling data in Database Management System (DBMS).





T.R.R GOVERNMENT DEGREE COLLEGE
Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accreditedated with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : M.Kusuma

Year & Group : II -B.Sc(MPCS)

Topic Name : Attributes in DBMS

No. of Students Participated: 21

Abstract :

Attributes are the characteristic properties that collectively define an entity. We can also think of attributes as the values that are used to describe a specific member or attributes as a column in an entity table. Composite attribute: Attribute composed of more than one simple attribute.





T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
[Established in 1966,Re-Accreditedated with 'B' by NAAC]
Affiliated to Acharya Nagarjuna University



Name of the Student : G.Manohar

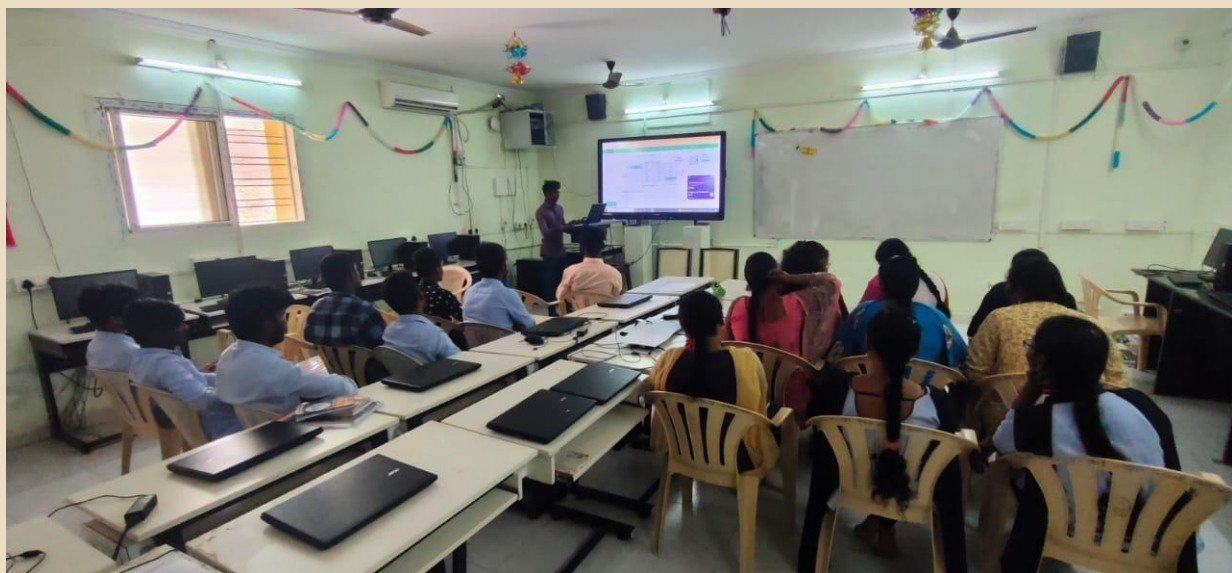
Year & Group : II -B.Sc(DSCS)

Topic Name : RDBMS

No. of Students Participated: 21

Abstract :

Relational databases store data in tables. Tables can grow large and have a multitude of columns and records. Relational database management systems (RDBMSs) use SQL (and variants of SQL) to manage the data in these large tables.





T.R.R GOVERNMENT DEGREE COLLEGE



Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105
Established in 1966 Re. Accredited with 'B' by NAAC

Name of the Student : V.Priyanka

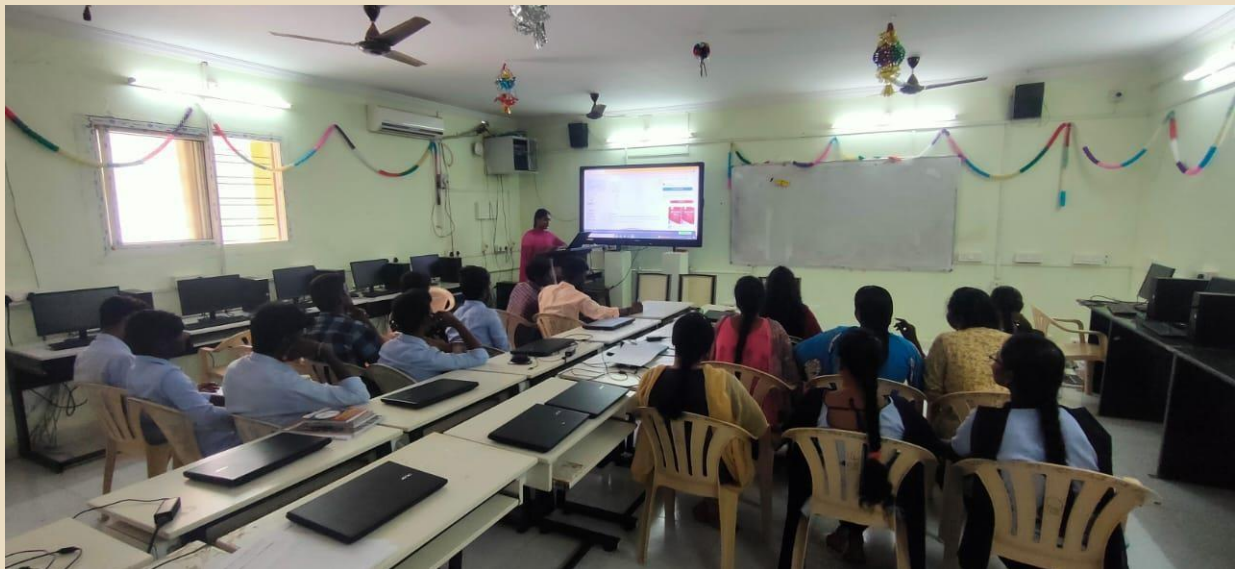
Year & Group : II -B.Sc(MPCS)

Topic Name : Entities in DBMS

No. of Students Participated: 21

Abstract :

An entity is a form of storing information, the entity can be a person, organization, place, or an object. An entity helps computers understand everything you know about a person, an organization or a place mentioned in a document.





T.R.R. GOVERNMENT DEGREE COLLEGE

Kandukur, Prakasam District, Andhra Pradesh, Pincode: 523105

[Established in 1966, Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



WORKSHOP ON SHAKESPEAREAN DRAMA

CIRCULAR

This is to inform all the students that a workshop will be held on 'Shakespearean drama' on 18/12/2018 and 19/12/2018 in our college. Eminent lecturers will attend and discuss with the students and deliver their valuable lectures. All the students are instructed to attend the workshop on both the days without fail.

(Signature)

Lecturer in English.

I BA - [Signature]

II BA - [Signature]

III BA - [Signature]

I Bcom - [Signature]

II Bcom - [Signature]

III Bcom - [Signature]

I BSC - [Signature]

II BSC - [Signature]

III BSC - [Signature]

[Signature]
PRINCIPAL
T.R.R. GOVT. DEGREE COLLEGE
NAAC Accredited B
KANDUKUR-523 105, Prakasam Dt

REPORT ON THE WORKSHOP

The Department of English Conducted a workshop on “Shakespearean Drama” on 18/12/2018 and 19/12/2018. The Resource persons of the Workshop were

- 1) Sri. K. Chandrasekhar Rao, Lecturer in English, GDC (W) Chirala, who delivered a lecture on **HAMLET**.
- 2) Dr. K. Koteswar Rao, Lecturer in English, GDC, Venkatagiri, who delivered a lecture on **ROMEO** and **JULIET**.
- 3) Sri. A. Hariprasad, Lecturer in English, GDC, Kovur, who delivered a lecture on **OTHELLO**.

All the discussions went on in a lively manner. The Lectures concentrated on the Language skills used by William Shakespeare and on the social relevance of the Plays. The Indecisiveness of **HAMLET**, the hasty decisions of **OTHELLO** – were compared and the students promptly understood the underlying sense in the explanation. The greed for power in Claudius, and the racial antagonism of Iago were discussed with special reference to the present-day conditions. The relevance of the love story of **Romeo and Juliet** to the present conditions in the society- the murder of Pranoy in Surya Peta, Nalgonda dt, Telangana state for marrying a girl of different caste.

The students also spoke in the end and shared their experiences. They also spoke on what they understood of Shakespeare and also on the relationship between man and society as perceived from the plays on which they have discussed. Thus, the Workshop created a spirit of enthusiasm among the students. The Programme was attended by Smt.D. Vijaya Sri, Principal, Dr.Ch. Shankar Rao, IQAC Coordinator, C. Ramu, Lecturer in English. The whole programme was coordinated by Sri. P. Raj Gopala Babu, In charge, Department of English.

OBJECTIVES

- To bring about an awareness among the students on English Language and Literature.
- To Inculcate an interest towards Reading among the students.
- To Understand the relationship between Literature and Society.
- To enthuse the students to develop an interest towards English Literature.

OUTCOMES

- The students participated actively in the Workshop.
- Their interest towards Literature grew and it is evident from the speeches they gave at the end
- The Resource persons motivated the students towards reading Literature.
- The spirit of inquiry improved among the students.



Tele Fax : 08598 -223546 -Mobile :7780620587

mail ID : gdckandukur@gmail.com

web site: www.gdckandukur.com



T. R. R GOVERNMENT DEGREE COLLEGE, KANDUKUR (NAAC-B)
PRAKASAM -DISRICT - ANDHRA PRADESH PIN:523 105

Smt. D. Vijaya Sri, M. Sc, M.Phil.,
PRINCIPAL F. A. C

Dt: 04-12-2018

To
The Principal,
Y.A. Govt. Degree College for Women,
Chirala,
Prakasam District.

Sir / Madam,

I am happy to inform you that the Department of English of our college is going to organize a Workshop on ' SHAKESPEAREAN DRAMA" ON 18-12-2018 and 19-12-2018. I request you to kindly depute Sri. K. Chandra Sekhar Rao, Lecturer in English to deliver a lecture on the topic and also to participate in the discussions.

Thanking you

Yours Faithfully
T.R.R. GOVT. DEGREE COLLEGE
NAAC Accredited B
KANDUKUR - 523 105, Prakasam District.



Tele Fax : 08598 -223546 -Mobile :7780620587

mail ID : gdckandukur@gmail.com

web site: www.gdckandukur.com



T. R. R GOVERNMENT DEGREE COLLEGE, KANDUKUR (NAAC-B)
PRAKASAM -DISRICT - ANDHRA PRADESH PIN:523 105

Smt. D. Vijaya Sri, M. Sc, M. Phil.,
PRINCIPAL F. A. C

Dt: 04-12-2018

To
The Principal,
Govt. Degree College,
Kovur,
S.P.S.R Nellore District.

Sir / Madam,

I am happy to inform you that the Department of English of our college is going to organize a Workshop on ' SHAKESPEAREAN DRAMA" ON 18-12-2018 and 19-12-2018. I request you to kindly depute Sri. A. Hari Prasad, Lecturer in English to deliver a lecture on the topic and also to participate in the discussions.

Thanking you

[Handwritten Signature]
4/12/18
PRINCIPAL
Yours Faithfully,
T.R.R. GOVT. DEGREE COLLEGE
NAAC Accredited B
KANDUKUR - 523 105, Prakasam District



Tele Fax : 08598 -223546 -Mobile :7780620587

mail ID : gdckandukur@gmail.com

web site: www.gdckandukur.com



T. R. R GOVERNMENT DEGREE COLLEGE, KANDUKUR (NAAC-B)
PRAKASAM -DISRICT - ANDHRA PRADESH PIN:523 105

Smt. D. Vijaya Sri, M.Sc, M.Phil.,
PRINCIPAL F.A.C

Dt: 04-12-2018

To
The Principal,
Govt. Degree College,
Venkatagiri,
S.P.S.R Nellore District.

Sir / Madam,

I am happy to inform you that the Department of English of our college is going to organize a Workshop on ' SHAKESPEAREAN DRAMA" ON 18-12-2018 and 19-12-2018. I request you to kindly depute Sri. K. Koteswar Rao, Lecturer in English to deliver a lecture on the topic and also to participate in the discussions.

Thanking you

Vijaya Sri
4/12/18
Yours faithfully,

T.R.R. GOVT. DEGREE COLLEGE
NAAC Accredited B
KANDUKUR - 523 105, Prakasam District

పాఠాంశ ప్రచురణ

డా. ఆర్. ఆర్. ప్రభుత్వ డిగ్రీ కళాశాల, కందుకూరు నందు
 "షెక్స్పియర్ నాటకాల" అను అంశంపై వర్తకం
 నిర్వహించడం జరిగింది. కళాశాల అంగణ కళా ఆభివృద్ధి
 లాభనీయ కార్యక్రమాలలో కళాశాల ప్రస్థాన క్రీడలు ది విజయ
 గాను పాల్గొనితూ షెక్స్పియర్ యొక్క గాథలనూ సమకాలీనతను
 వివరించారు. ప్రభుత్వ డిగ్రీ కళాశాల నిలకడు పందిన క్రీడ చుట్టూ
 గాను "హామెట్" (HAMLET) నాటకం గురించి వివరించారు. కౌన్సిలు
 డిగ్రీ కళాశాలకు పందిన క్రీ. A. హరిప్రసాద్ "ఒథెల్లో" (OTHELLO) నాటకం
 గురించి వివరించారు. పాకట గిరి డిగ్రీ కళాశాలకు పందిన డా. కౌన్సిల్
 కళాశ్రీ "రామాయణ-బాలయ్య" నాటకం గురించి వివరించారు. వేటి
 సమాజంలో షెక్స్పియర్ నాటకాలకు ఉన్న సమకాలీనత మరియు
 ఆలాచంబ నిర్ణయాల చివరకు వీర పాఠాంశం వల ఆలపనను
 కౌన్సిల్ ఆలయ శాస్త్రం. I.A.C. కి-ఆర్. సేవర్ క్రీ. H. కింకరశాస్త్రి
 గారు కళాశాలలో అన్ని విధాలా ఈ విషయమైన కార్యక్రమాల నిర్వహించి
 విజయములను సుఖనాటకం గానే పంపించినట్లుగా కౌన్సిల్. కౌన్సిల్
 దేని 19.12.18 న విజయముల నాటకాలపై విజయముగా కార్యక్రమం
 జరుగుతుందని ప్రస్థానం తెలిపారు. ఈ కార్యక్రమంలో కళాశాల అంగణ
 అభివృద్ధి క్రీ. P. శాశి గౌడ్, క్రీ. H. రాము మరియు ఇతర అన్ని విధాల
 కు పందిన అభివృద్ధి కు పాల్గొన్నారు.


 PRINCIPAL
 T.R.F. GOVT. DEGREE COLLEGE
 NAAC Accredited B
 KANDUKUR-523 185 Prakasam Dt



T.R.R. GOVT. DEGREE COLLEGE

KANDUKUR - 523 105, Prakasam Dist.: 08598-223546

NAAC ACCREDITED B+

2018 - 2019

ACADEMIC ACTIVITY -

CLASS : GROUP : ALL STUDENTS DATE : 18/12/2018 HOUR :

SUBJECT : SHAKELPEREEN DRAMA PAPER : TIME : 15min.

S.No.	Roll No.	Name of the Student	Signature of the Student
1			
2			
3			
4			

No of Students Present :

Signature of the Lecturer

S.No.	Roll No.	Name of the Student	Signature of the Student
1	3360	P. Venkata Rao	P. Venkata Rao
2	7026	K. Jyoti	K. Jyoti
3	7031	P. Bhanu Prakash	P. Bhanu Prakash
4	70026	M. Vali	M. Vali
5	Y181037036	SK. Shahneeraz	SK. Shahneeraz
6	70037	T. BALAJI	T. Balaji
7	37016	K. Sreenadh	K. Sreenadh
8	37012	K. Katalakoti	K. Katalakoti
9	Y183037052	V. Brahmenendra	V. Brahmenendra
10	Y171037047	S. Mallikarjuna	S. Mallikarjuna
11	2485	N. Thimathu	N. Thimathu
12	Y171037028	L. VENKATESWARLU	L. Venkateswarlu
13	Y171037046	R. PRAYEENKUMAR.	R. Prayeenkumar
14	Y173037055	K. Jansi	K. Jansi
	Y173037040	P. Siddaiah	P. Siddaiah
	Y173037053	J. Sasi Kumar	J. Sasi Kumar

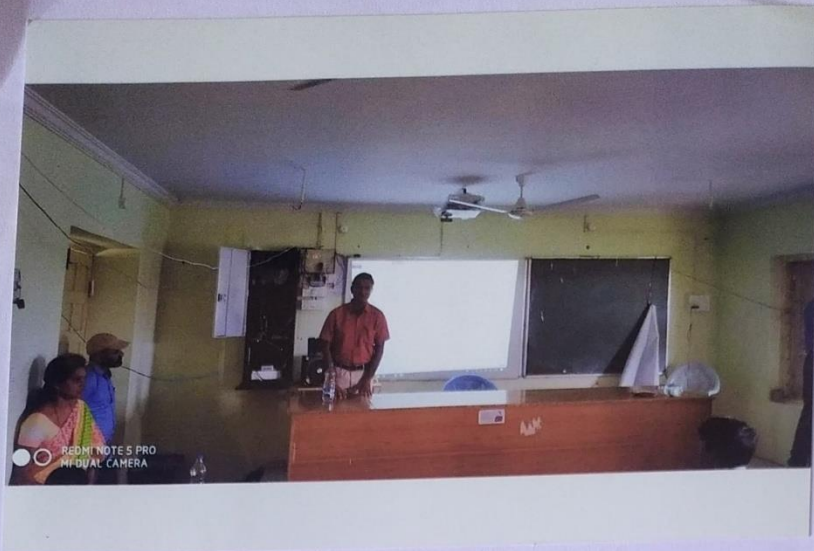
S.No.	Roll No.	Name of the Student	Signature of the Student
17	Y177037048	Y. Kesavulu	Y. Kesavulu
18	Y177037014	J. Srikanth	J. Srikanth
19	Y173037019	K. Kishore	K. Kishore
20	Y177037018	K. Pradeep Kumar	K. Pradeep Kumar
21	Y177037005	B. Vishnu	B. Vishnu
22	Y177037039	S. Vinod	S. Vinod
23	Y183037018	P. Nagendra Babu	P. Nagendra Babu
24	Y172037004	D. Chenebu Surem	D. Chenebu Surem
25	Y177037049	J. Mallikarjuna	J. Mallikarjuna
26	Y173037015	M. Ch. Venkata Eswarain	M. Ch. Venkata Eswarain
27	Y172037004	M. Manoj Kumar	M. Manoj Kumar
28		Ch. Pradeep	Ch. Pradeep
29	Y177037022	K. Madhu Sudhan	K. Madhusudhan
30	Y181037039	A. John Babu	A. John Babu
31	Y177037001	A. Sivakari	A. Sivakari
32	Y177037024	M. Saran Kumar	M. Saran Kumar
33	Y173037019	M. Naveen	M. Naveen
34	Y173037006	G. Ganesh Babu	G. Ganesh Babu
35	Y173037009	K. Shyam Prasad	K. Shyam Prasad
36		K. Anthony	K. Anthony
37	Y173037054	K. Suresh	K. Suresh
38		B. Durga Babu	B. Durga Babu
39	Y183037041	B. Sai	B. Sai
40	Y183037045	K. Dinesh	K. Dinesh
41	Y182037006	J. Parameyothi	J. Parameyothi
42		T. Ramanjaneyulu	T. Ramanjaneyulu
43		B. Anvesh Krishna	B. Anvesh Krishna
44		G. Ameer	G. Ameer
45		A. Manohar	A. Manohar

WORKSHOP

SHAKESPEAREAN DRAMA



18/12/2018 - 19/12/2018



18/12/2018
19/12/2018



18/12/2018

19/12/2018



షేక్స్పియర్ నాటకాలపై అవగాహన

ప్రజాశ్రీ-కందుకూరు

కందుకూరు టీఆర్ఎఫ్ ప్రభుత్వ డిగ్రీ కళాశాలలో 'షేక్స్పియర్ నాటకాలు' అనే అంశంపై మంగళవారం వర్క్ షాపు నిర్వహించారు. కళాశాల ఆంగ్ల శాఖ అధ్యక్షురాలి జరిగిన ఈ కార్యక్రమానికి కళాశాల ప్రెసిడెంట్ డి. విజయశ్రీ హాజరై మాట్లాడుతూ షేక్స్పియర్ గొప్పతనాన్ని వివరించారు. ప్రభుత్వ డిగ్రీ కళాశాల చీరాలకు చెందిన కె. చంద్రశేఖర్ హెల్పర్ నాటకం గురించి వివరించారు. కోవూరు డిగ్రీ

కళాశాలకు చెందిన ఎ. హరిప్రసాద్ ఒకటి నాటకం వివరించారు. వెంకటగిరి డిగ్రీ కళాశాలకు చెందిన కె. కోటేశ్వరరావు రోమియో-జూలియట్ నాటకం గురించి వివరించారు. సీహెచ్ శంకర్ రావు మాట్లాడుతూ కళాశాలలో అన్ని విభాగాలు ఈ విధమైన కార్యక్రమాలు నిర్వహించి విద్యార్థులలో సృజనాత్మిక శక్తిని పెంపొందించాలని కోరారు. ఈవేల 19వ తేదీ విద్యార్థులలో నాటకాలపై విశేషణ కార్యక్రమం జరుగుతుందని చెప్పారు.

నాటకాలపై అవగాహన అవసరం

కందుకూరు పట్టణం, స్కూన్టుడే, విద్యార్థులు సృజనాత్మక శక్తిని సంపాదించేందుకు నాటకాలపై అవగాహన పెంచుకోవాలని టీఆర్ఎఫ్ డిగ్రీ కళాశాల ప్రెసిడెంట్ డి. విజయశ్రీ అన్నారు. స్థానిక కళాశాలలో మంగళవారం షేక్స్పియర్ నాటకాలు అనే అంశంపై వర్క్ షాప్ నిర్వహించారు. ఈ సందర్భంగా ప్రెసిడెంట్ మాట్లాడుతూ షేక్స్పియర్ నాటకాలకు సమకాలీనత ఉందని, ఆలోచించి నిర్ణయాలు తీసుకునే వ్యవహార పరిణామం ఏవిధంగా అలవరుచుకోవాలో తెలుస్తుందన్నారు. చీరాల ప్రభుత్వ డిగ్రీ కళాశాల అధ్యాపకుడు కె. చంద్రశేఖర్ విద్యార్థులకు హామెట్ నాటకం గురించి వివరించారు. కార్యక్రమంలో అధ్యాపకులు ఎ. హరిప్రసాద్,



కార్యక్రమంలో మాట్లాడుతున్న ప్రెసిడెంట్ విజయశ్రీ

కె. కోటేశ్వరరావు, పి. రాజగోపాల్, సీహెచ్. రాము, బహ్యుపసీ కోఆర్డినేటర్ సీహెచ్. శంకర్ రావు తదితరులు పాల్గొన్నారు.

షేక్స్పియర్ నాటకాలపై వర్క్ షాప్



కార్యక్రమంలో మాట్లాడుతున్న ప్రెసిడెంట్ విజయశ్రీ

కందుకూరు రూరల్, టీఆర్ఎఫ్ ప్రభుత్వ డిగ్రీ కళాశాలలో షేక్స్పియర్ నాటకాలు అను అంశంపై మంగళవారం వర్క్ షాప్ నిర్వహించారు. కళాశాల ఆంగ్ల శాఖ అధ్యక్షురాలి జరిగిన ఈ కార్యక్రమంలో ప్రెసిడెంట్ డి. విజయశ్రీ మాట్లాడుతూ ప్రస్తుత సమాజంలో ఒకరిపై ఒకరు అనుమానాలు, సమ్మత పోవడం, ద్రోహం చేయడం వంటి వాటి వల్ల గొప్ప వ్యక్తులు కూడా దూరమై పోతున్నారు. నీతి అలవాట్లు, గొప్పతనాలను తెలియజేసే షేక్స్పియర్ నాటకాలు ద్వారా తెలుసుకోవచ్చున్నారు. మనిషిలో ఉన్న సుగుణాలు, మంచి నడవడిక ఏ విధంగా ఉన్నత స్థానాలకు తీసుకెళ్లడం విద్యార్థులకు తెలియజేయాలి. చీరాల ప్రభుత్వ డిగ్రీ కళాశాలకు చెందిన కె. చంద్రశేఖర్ హెల్పర్ నాటకం గురించి వివరించారు. కోవూరు డిగ్రీ కళాశాలకు చెందిన ఎ. హరిప్రసాద్ ఒకటి నాటకం గురించి, వెంకటగిరి డిగ్రీ కళాశాలకు చెందిన కె. కోటేశ్వరరావు రోమియో-జూలియట్ నాటకం గురించి వివరించారు. ఆయన మాట్లాడుతూ షేక్స్పియర్ నాటకాలకు ఉన్న మూలన, ఆలోచించి నిర్ణయాలు తీసుకోనే వ్యవహార జ్ఞానం ఎలా అలవరుచుకోవాలో తెలియజేయాలి. ఐదవ వారం విద్యార్థులలో నాటకాలపై విశేషణ కార్యక్రమం నిర్వహిస్తుందని ప్రెసిడెంట్ తెలిపారు. ఈ కార్యక్రమంలో బహ్యుపసీ కోఆర్డినేటర్ సీహెచ్. శంకర్ రావు, ఆంగ్ల అధ్యాపకులు పి. రాజగోపాల్, సీహెచ్. రాము, విద్యార్థులు పాల్గొన్నారు.



మాట్లాడుతున్న ప్రెసిడెంట్ విజయశ్రీ

టీఆర్ఎఫ్లో వర్క్ షాప్

కందుకూరు, డిసెంబరు 18 : టీఆర్ఎఫ్ ప్రభుత్వ డిగ్రీ కళాశాలలో మంగళవారం షేక్స్పియర్ నాటకాలు అనే అంశంపై వర్క్ షాప్ నిర్వహించారు. కళాశాల ఆంగ్ల శాఖ అధ్యక్షురాలి జరిగిన ఈ కార్యక్రమంలో ప్రెసిడెంట్ డి. విజయశ్రీ మాట్లాడుతూ షేక్స్పియర్ గొప్పతనాన్ని సమకాలీనతను వివరించారు. చీరాల ప్రభుత్వ డిగ్రీ కళాశాలకు చెందిన అధ్యాపకుడు కె. చంద్రశేఖర్ హెల్పర్ నాటకం గురించి వివరించారు. ఈ సెమినార్ కి హాజరైన వివిధ కళాశాల అధ్యాపకులు షేక్స్పియర్ రచించిన వివిధ నాటకాల గురించి వివరించారు. నేటి సమాజంలో ఆయన రచనలకు ఉన్న సమకాలీనతను, ఆలోచించి నిర్ణయాలు తీసుకునే వ్యవహార జ్ఞానం ఎలా అలవరుచుకోవాలో తెలియజేయాలి. కళాశాల బహ్యుపసీ కోఆర్డినేటర్ సీహెచ్. శంకర్ రావు మాట్లాడుతూ కళాశాలలో అన్ని విభాగాలు ఈ విధమైన కార్యక్రమాలు నిర్వహించి విద్యార్థులలో సృజనాత్మిక శక్తిని పెంపొందించాలని కోరారు. ఐదవ వారం కళాశాలలో షేక్స్పియర్ నాటకాలపై విశేషణ కార్యక్రమం జరుగుతుందని ప్రెసిడెంట్ విజయశ్రీ తెలిపారు. కార్యక్రమంలో కోవూరు డిగ్రీ కళాశాలకు చెందిన ఎ. హరిప్రసాద్, వెంకటగిరి డిగ్రీ కళాశాలకు చెందిన డా. కె. కోటేశ్వరరావులు, టీఆర్ఎఫ్ కళాశాల ఆంగ్ల అధ్యాపకులు పి. రాజగోపాల్, సీహెచ్. రాము, ఇతర అన్ని విభాగాలకు చెందిన అధ్యాపకులు పాల్గొన్నారు.



T.R.R GOVERNMENT DEGREE COLLEGE

Kandukur,Prakasam District,Andhra Pradesh,Pincode:523105

[Established in 1966,Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



TRR GOVERNMENT DEGREE COLLEGE'KANDUKUR

DEPARTMENT OF CHEMISTRY

CERTIFICATE COURSE -2018 - 19

RESOLUTION

A departmental meeting was held on 01-10-2018 in the principal chamber to discuss about certificate course. It is resolved to start certificate course on 'Chemistry in daily life' for III BSc students.

1.

2.

3

Signature of the principal

TRR GOVERNMENT DEGREE COLLEGE KANDUKUR

DEPARTMENT OF CHEMISTRY

CERTIFICATE COURSE

CIRCULAR-28-10-2018

The department of chemistry decided to start one month certificate course for III BSc chemistry cluster students on 'Chemistry in Every day life'. The duration of the course is 4 weeks .i.e from 3-11-2018 to 3-12-2018. 90% attendance is compulsory to forward the exam. All Chemistry cluster students must enroll their names at the incharge of the course ie J,Mythri., lecturer in chemistry on or before 2-11-2018. Syllabus and time table are as given below.



Incharge of the department



Signature of the principal

T.R.R Government College, kandukur -523105

Department of Chemistry

III BSc

Certificate Course -2018 -2019

S. NO	NAME OF THE STUDENT	Signature of the student
1.	A Ramya, MPC	A Ramya
2	Ch Siva sankar, MPC	Ch. Shiva Shankar
3	J Mounika, MPC	J. Mounika
4.	M.Sumanjali, MPC	M. Sumanjali
5	S. Sujatha, MPC	S. Sujatha
6	V.Madhubabu, BZC	V. Madhubabu
7	U.Nagendra, BZC	U. Nagendra
8	U.Madhankumar, BZC	U. Madhankumar
9	A Siva swathi, BZC	A. Siva Swathi
.10	U Sandya, BZC	U. Sandya



T.R.R Government Degree College. Kandukur

Prakasam (Dist). A.P, India -523105

Department of Chemistry

Certificate Course in Chemistry – Every Day Life (30 hours)

Syllabus

1. Chemistry of cosmetics and cleaning agents
 - Chemistry of tooth paste, Soaps and detergents, hand washes , floor cleaners 3 hour
 - Chemistry perfumes, lotions, cream, lipsticks, hair dyes etc. 3 hours
2. Household Chemical Products and Their Health Risk
 - Chemicals used in Household purposes , health risks and safety tips 6 hours
3. The Chemical of Nutrition
 - Carbohydrates, Proteins, Lipids, Energy Balance, Micronutrients, Over nutrition and Under nutrition. 6 hours
4. Chemistry of food preservatives
 - Main Chemical preservative for foods – Organic acids and Esters, Nitrite, Sulfur Dioxide and Natural food preservatives . 6 hour
5. The Chemistry of sports and Energy drinks
 - Effects of Caffeine On the Body and chemistry behind respiration. 3 hours
 - Sports nutrition and balanced diet. 3 hours

TRR GOVERNMENT DEGREE COLLEGE, KANDUKUR

DEPARTMENT OF CHEMISTRY

CERTIFICATE COURSE

CHEMISTRY IN EVERY DAY LIFE

Learning Objectives:

- Students should know the world of Chemistry around them
- To know chemicals present in Cleaning agents and in Cosmetics
- To know chemicals that will be used in House hold purpose
- To know uses of Carbohydrates, lipids, proteins
- To know how food preservatives act
- To know chemicals in sports and energy drinks

Out Comes:

- They came to know the mechanism of bleaching activity
- They learn about disinfectants, surface cleaners
- They learn cleaning action of Soaps, Hydrogenation of Oils
- They understood drying, refrigeration, fermentation, came to aware the safety methods food preservation
- They understood role of Ions , caffeine in sports and in energy drinks

TRR GOVERNMENT DEGREE COLLEGE, KANDUKUR

DEPARTMENT OF CHEMISTRY

ASSESSMENT TEST FOR CERTIFICATE COURSE ON 'Chemistry in everyday life'.

Name of the student:

Class:

Answer all questions

1. Aspirin is?

a) Acetylsalicylic acid b) Benzyl salicylic acid c) Chloro benzoic acid d) Anthranilic acid Answer: (a)

2. In hair conditioners the organic detergent used is?

a) Sodium dodecylbenzene sulphonate b) cetyltrimethylammonium bromide
c) Tetramethylammonium chloride d) sodium stearyl sulphate Answer: (b)

3. The artificial sweetener that contains chlorine that has the look and taste of sugar and is the stable temperature for cooking?

a) Aspartame b) Saccharin c) Sucralose d) Alitame Answer: (c)

4. Which acid is Present in sour Milk?

a) Citric acid b) Ascorbic acid c) Lactic acid d) glycolic acid (c)

5. Which one of the following is the sunscreen agent?

a) ZnO b) Potassium c) steel D) Zinc (a)

6. A cosmetic product which has as its prime function the ability to complement skin colour by Imparting velvet like finish is called

a. Moisturizing lotion b. Rouge c. Vanishing cream d. Face powder (d)

7. What is the role of sodium bicarbonate in a mouthwash?

a. It acts as buffer salt b. It is a cleansing agent c. It is a deodorizer d. It acts as viscosity building agent (c)

8. Which mineral helps iron in the formation of hemoglobin?

a) Copper b) Zinc c) Vitamin E d) Cobalt (a)

9. How many amino acids must be available in the diet?

a) 23 b) 9 c) 7 D) None of the above (b)

10. Liver, meat, egg and dry fruits are the main sources of

a) Iron b) Zinc c) Cobalt d) None of the above a

T.R.R.GOVERNMENT DEGREE COLLEGE, KANDUKUR.

DEPARTMENT OF CHEMISTRY

FEEDBACK FORM ON CERTIFICATE COURSE ON" CHEMISTRY IN EVERY DAY LIFE"

NAME OF THE STUDENT:

REGD.NO:

CLASS :

GROUP:

1. Is this certificate course advantageous or not

a) Yes b) No

2. How much did you learn from this course?

a) A great deal b) A lot c) A moderate d) A little e) Nothing

3. How Organized was this course?

a) Extremely b) Moderately c) Very good d) Satisfactory e) not at all

4. How many hours per week on average did you spend on this course?

a) 3 b) 5 c) 6 d) 2

5. Overall how would you describe the quality of instruction in this course?

a) Excellent b) good c) Fair d) Poor e) Very Poor



**T.R.R. GOVERNMENT DEGREE COLLEGE
KANDUKUR, PRAKASAM (DIST), A.P.**

Certificate

This is to certify that *Kum.A.Siva Swathi* of III B.Sc (BZC) has successfully completed the certificate course on "Chemistry - Everyday Life" organized by Department of Chemistry of T.R.R. Govt. Degree College, Kandukur during the academic year 2018-19.

M. S. S.
Head of the Department

M. S. S.
Principal

**T.R.R. GOVERNMENT DEGREE COLLEGE
KANDUKUR, PRAKASAM (DIST), A.P.**

Certificate

This is to certify that *Mr.V.Madhubabu* of *III B.Sc (BZC)* has successfully completed the certificate course on "*Chemistry - Everyday Life*" organized by Department of Chemistry of T.R.R. Govt. Degree College, *Kandukur* during the academic year 2018-19.

Mubasy
Head of the Department

[Signature]
Principal



T.R.R. GOVERNMENT DEGREE COLLEGE

Kandukur, Prakasam District, Andhra Pradesh, Pincode: 523105

[Established in 1966, Re-Accredited with 'B' by NAAC]

Affiliated to Acharya Nagarjuna University



CIRCULAR

13-09-2018

This is to inform all the I, II and III year students that there will be a guest lecture on 'Structure and Function of Kidney in Human Beings' in our college on 14-09-2018. Smt. V. Jameela, Lecturer in Zoology, D.S. Govt Degree College, ONGOLE, will deliver the lecture. All the students should attend the lecture without fail.

I - ~~Rajana~~

II - K.L. ~~ad~~

III - ~~VLS~~

~~less~~
K. SRINIVAS.
I/c. Dept of Zoology

~~VLS~~

GUEST LECTURE
T.R.R GOVT DEGREE COLLEGE ,KANDUKUR
DEPARTMENT OF ZOOLOGY

Name of the Activity	:	Guest Lecture on Structure and function of kidney In Human beings .
Date	:	14-09-2018
Time	:	12.00 to 1.00 pm
Resource person	:	V.Jameela D.S govt degree college(w),ongole.
INTRODUCTION	:	Department of zoology ,T.R.R govt degree college , kandukur.Come forward to arrange a Guest Lecture to create awareness to the students about the structure and functions of kidney in Human beings.
AIMS and OBJECTIVES of the programme	:	To provide funding of research into kidney structure,functions and related diseases ,affecting the kidney .
PARTICIPANTS	:	I,II,and III B.SC (B.Z.C) zoology students of the (nearly 30 students) participated
PROGRAMME OUT COMES	:	After completion of the lecture students came to know about kidney development ,structure,functions and diseases affecting the kidney.

T.R.R GOVERNMENT DEGREE COLLEGE

DEPARTMENT OF ZOOLOGY

ATTENDANCE SHEET

S.NO	NAME OF THE STUDENT	CLASS	SIGNATURES
1.	B.Ravi	IB.Z.C	B. Ravi
2.	D.Ashok	IB.Z.C	D. Ashok
3.	D.Mounika	IB.Z.C	D. Mounika
4.	G.Jyothi	IB.Z.C	G. Jyothi
5.	J.Divya	IB.Z.C	J. Divya
6.	N.Kumari	IB.Z.C	N. Kumari
7.	P.Teja	IB.Z.C	N. Kumari P. Teja
8.	T.Koteswari	IB.Z.C	T. Koteswari
9.	Y.Soni	IB.Z.C	y. soni
10.	T.Maduri	IB.Z.C	T. Maduri
11.	D.Swathi	IIB.Z.C	D. Swathi
12.	G.Ganeash	IIB.Z.C	G. Ganeash
13.	K.Hima Bindhu	IIB.Z.C	K. Hima Bindhu
14.	K.Gopaiah	IIB.Z.C	K. Gopaiah
15.	K.Sai Kumar	IIB.Z.C	K. Sai Kumar
16.	M.Sunil	IIB.Z.C	M. sunil
17.	M.Naveen	IIB.Z.C	M. Naveen
18.	N.Rajani	IIB.Z.C	N. Rajani
19.	N.Pavani	IIB.Z.C	N. Pavani

20.	T.Syamala	IIB.Z.C	T. SYaMaLa
21.	M.Manoj Kumar	IIB.Z.C	M. Manoj kumar
22.	A.Sai purnima	IIB.Z.C	A. Sai purnima .
23.	K.Syam Prasad	IIB.Z.C	K. Syam Prasad
24.	A.Siva Swathi	III B.Z.C	A. Siva Swathi
25.	B.Manoj Kumar	III B.Z.C	B. Manoj kumar
26.	D.Madhavi	III B.Z.C	D. madhavi
27.	K.Mohan	III B.Z.C	K. mohan
28.	U.Sandhya	III B.Z.C	U. Sandhya
29.	U.Nagendra	III B.Z.C	U. Nagendra
30.	U.Madhan Kumar	III B.Z.C	U. Madhan kumar

