



**GOVERNMENT DEGREE COLLEGE**  
Accredited with NAAC 'B' Grade  
(Affiliated to Adikavi Nannaya University, Rajahmundry)  
MANDAPETA - 533308 Dr. B.R Ambedkar Konaseema (dist), Andhra Pradesh



**Report on Solar Systems**

Title	Internship on "Established in Solar Systems"
Duration	From 16 - 09 - 2022 To 16 - 11 - 2022
Place of Work	Solar Systems, Kakinada.
Number of Persons	14

**Objectives:**

- To integrate theory and practice.
- To learn to appreciate work and its function towards the future.
- To develop work habits and attitudes necessary for job success.
- To develop communication, interpersonal and other critical skills in the future job.
- To acquire additional skills required for the world of work.

**Outcomes:**

- Students effectively apply theoretical knowledge to real-world situations, demonstrating a deep understanding of their field and an ability to solve practical problems.
- Students develop a positive attitude towards work, recognizing its value and importance in achieving personal and professional goals.
- Students establish strong work ethics, including reliability, time management, and a proactive attitude, contributing to their success in any job.
- Students demonstrate enhanced communication and interpersonal skills, along with critical thinking and adaptability, making them effective team members and leaders in the workplace.
- Students gain a diverse set of competencies, including both technical and soft skills, ensuring they are well-prepared to meet the challenges and demands of contemporary job markets.

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IQAC Coordinator.  
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Sig. of the Principal

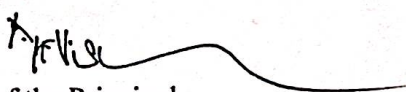
Principal  
Govt. Degree College  
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**List of Students:**

S. No.	Name of the Student	Regd. Number	Class
1	G.D.N. Sai Prasad	190637101002	III M.P.C
2	K. Lakshmi prasanna	190637101003	III M.P.C
3	K. Kalyani	190637101004	III M.P.C
4	K. Jeevan subbareddy	190637101005	III M.P.C
5	N. Veera Lakshmi	190637101006	III M.P.C
6	P. Kiran Varma	190637101007	III M.P.C
7	K. Raghubabu	190637101008	III M.P.C
8	S.S. Dattasri ram	190637101009	III M.P.C
9	T. Padmavathi	190637101010	III M.P.C
10	U. Nagu	190637101011	III M.P.C
11	U. Vijay raju	190637101012	III M.P.C
12	K. Siva	190637102017	III M.P.Cs
13	M. Rajesh	190637102018	III M.P.Cs
14	Y. Venkatesh	190637102020	III M.P.Cs

  
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MANDAPETA - 533308 Dr. B.R Ambedkar Konaseema (dist), Andhra Pradesh



## Report on Revanth Software Solutions Pvt, Limited

Title	Internship on "React JS with MongoDB"
Duration	From 20 - 08 - 2023 To 20 - 10 - 2023
Place of Work	<u>Revanth Software Solutions Pvt, Limited,</u> <u>Hyderabad.</u>
Number of Persons	55

### Objectives:

- Explore career alternatives prior to graduation.
- To access interests and abilities in the field of study.
- To develop communication, interpersonal and other critical skills in the future job.
- To acquire additional skills required for the world of work.
- To acquire employment contacts leading directly to a full-time job following graduation from college.

### Outcomes:

- Students have a clear understanding of various career paths available within their field of study, enabling them to make informed decisions about their future careers.
- Students identify and align their personal interests and strengths with potential career options, enhancing their satisfaction and performance in their chosen field.
- Students demonstrate improved communication, teamwork, and problem-solving skills, making them more effective and adaptable in professional environments.
- Students possess a broader skill set, including technical and soft skills that meet the demands of modern workplaces increasing their employability and job readiness.
- Students build a network of professional contacts and secure internships or job offers, facilitating a smoother transition into full-time employment post-graduation.

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38	G.V. Sravanthi	210638200010	III B.Com (Comp. Sc.)
39	Ananda sairam	210638200011	III B.Com (Comp. Sc.)
40	K. Bhuvaneswari	210638200013	III B.Com (Comp. Sc.)
41	K.S.R. Lakshmi srujana	210638200014	III B.Com (Comp. Sc.)
42	K.Yedukondalu	210638200016	III B.Com (Comp. Sc.)
43	M.B.V.Prasad	210638200017	III B.Com (Comp. Sc.)
44	M. Dharma teja	210638200018	III B.Com (Comp. Sc.)
45	M. Sravani	210638200019	III B.Com (Comp. Sc.)
46	M. Jasmi	210638200020	III B.Com (Comp. Sc.)
47	P.Uday kiran	210638200021	III B.Com (Comp. Sc.)
48	P. Karthik	210638200022	III B.Com (Comp. Sc.)
49	P. Himabindu	210638200023	III B.Com (Comp. Sc.)
50	P. Jyothi	210638200024	III B.Com (Comp. Sc.)
51	S. Satish	210638200025	III B.Com (Comp. Sc.)
52	T.D.Vikas	210638200026	III B.Com (Comp. Sc.)
53	T. Sunela	210638200027	III B.Com (Comp. Sc.)
54	V. S. Tulasi	210638200028	III B.Com (Comp. Sc.)
55	V. Sairam	210638200029	III B.Com (Comp. Sc.)

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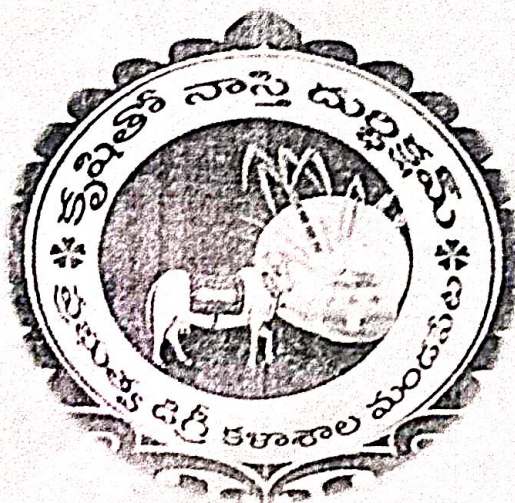
  
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**REPORT**  
**ON**  
**GUEST LECTURE**

Topic: Respiration in Mammals

26-09-2022



Organised by

**DEPARTMENT OF ZOOLOGY**



From

Date: 25-09-2022

The principal

Government Degree College

Mandapeta

To

The principal

PR Government Degree College

Ravulapalem

Sir,

Sub: Government Degree College Mandapeta – Guest Lecture on “Respiration in Mammals” Request for sparing the service of Smt.A.S.S.Sowjanya Lecturer in Zoology of your College on 26-09-2022-reg.

<<<>>

I would like to bring your kind notice that we propose to organise a Guest lecture on “Respiration in Mammals” on 26-09-2022. In this context I request you to depute Smt.A.S.S.Sowjanya Lecturer in Zoology of your College on 26-09-2022.

Thanking you Sir


Your Sincerely

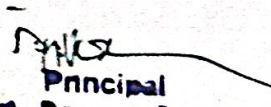
Copy to


Smt.A.S.S.Sowjanya

Lecturer in Zoology

GDC Ravulapalem.

  
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www.demandapeta.ac.in jeejee\_mandapeta@gmail.com

Date: 26-09-2022


## ATTENDANCE CERTIFICATE


This is to certify that Smt. A.S.S SOWJANYA, Lecturer in Zoology, Government Degree College Ravulapalem has attended in our college on 26-09-2022 and delivered Guest Lecture on "Respiration in Mammals" for II B.Sc students of this college.

PRINCIPAL

  
IQAC Coordinator,  
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Principal  
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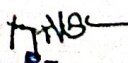
## GOVERNMENT DEGREE COLLEGE, MANDAPETA

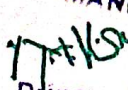
### AIMS AND OBJECTIVES OF THE PROGRAMME

#### Learning Objectives:

- **Oxygen Supply:** The primary goal of respiration is to provide a continuous supply of oxygen ( $O_2$ ) to the cells and tissues. Oxygen is essential for cellular respiration, the process by which cells produce energy (ATP) from nutrients.
- **Carbon Dioxide Removal:** Respiration also helps in removing carbon dioxide ( $CO_2$ ), a metabolic waste product of cellular respiration, from the bloodstream.  $CO_2$  removal is crucial for maintaining the acid-base balance (pH) in the body.
- **Acid-Base Balance:** By regulating the levels of  $CO_2$ , respiration helps maintain the blood pH within a narrow range (typically around 7.35-7.45). This balance is vital for proper enzymatic functions and overall metabolic processes.
- **Thermoregulation:** Breathing plays a role in regulating body temperature. In mammals, the process of breathing out (exhalation) helps to release heat generated by metabolic processes.
- **Voice Production:** In many mammals, respiration is involved in voice production. The flow of air through the vocal cords in the larynx (voice box) allows for sound production and communication.
- **Défense Mechanism:** The respiratory system helps protect the body from inhaled pathogens and particulate matter. The mucociliary escalator, consisting of mucus and cilia, traps and removes foreign particles and microbes from the respiratory tract.

  
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- **Gas Exchange Efficiency:** Respiration ensures efficient gas exchange by optimizing the exchange of oxygen and carbon dioxide between the alveoli in the lungs and the blood.

This efficiency is crucial for meeting the metabolic demands of the body.

### **Learning Outcomes:**

- **Understand the Basic Anatomy of the Respiratory System:**

Identify and describe the main components of the mammalian respiratory system, including the nasal cavity, pharynx, larynx, trachea, bronchi, bronchioles, and alveoli.

Explain the structure and function of each component in the context of resp

- **Explain the Mechanics of Breathing:**

Describe the process of ventilation, including the role of the diaphragm and intercostal muscles in inhalation and exhalation.

Understand the concepts of tidal volume, inspiratory reserve volume, and expiratory reserve volume.

- **Describe Gas Exchange and Transport:**

Explain the process of gas exchange that occurs in the alveoli and how oxygen and carbon dioxide are transported in the blood.

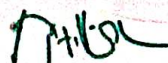
Understand the roles of haemoglobin and plasma in oxygen and carbon dioxide transport.

## **DETAILS OF THE GUEST AND SYNOPSIS OF THE LECTURE**

**NAME: A.S.S SOWJANYA**

**OCCUPATION : Lecturer in Zoology in GDC RAVULAPLEM**

**1. Introduction:** Respiration in mammals is a critical physiological process involving the exchange of gases—oxygen ( $O_2$ ) and carbon dioxide ( $CO_2$ )—between the environment and the body's cells. This process supports cellular metabolism, maintains homeostasis, and facilitates various bodily functions.

  
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## **2. Anatomy of the Respiratory System:**

**Upper Respiratory Tract:** Includes the nasal cavity, pharynx, and larynx. It functions to filter, warm, and humidify incoming air.

**Lower Respiratory Tract:** Consists of the trachea, bronchi, bronchioles, and alveoli. The trachea branches into the bronchi, which further divide into smaller bronchioles leading to the alveoli, where gas exchange occurs.

### **Mechanics of Breathing:**

**Inhalation:** The diaphragm and intercostal muscles contract, expanding the thoracic cavity and creating a negative pressure that draws air into the lungs.

**Exhalation:** The diaphragm and intercostal muscles relax, the thoracic cavity decreases in volume, and air is expelled from the lungs.

## **4. Gas Exchange:**

**At the Alveoli:** Oxygen diffuses from the alveoli into the blood, while carbon dioxide diffuses from the blood into the alveoli.

**In the Bloodstream:** Oxygen binds to hemoglobin in red blood cells for transport to tissues, while carbon dioxide is transported either as bicarbonate ions or bound to hemoglobin.

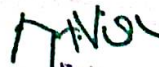
## **5. Regulation of Respiration:**

**Central Regulation:** The medulla oblongata and pons in the brainstem regulate the rate and depth of breathing based on  $\text{CO}_2$  levels, pH, and  $\text{O}_2$  levels in the blood.

**Peripheral Regulation:** Chemoreceptors in the carotid arteries and aorta monitor blood gas levels and send signals to adjust respiratory activity.

## **6. Functions of Respiration:**

**Oxygen Supply:** Delivers oxygen to tissues for cellular respiration and energy production.

  
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**Carbon Dioxide Removal:** Eliminates  $\text{CO}_2$ , a metabolic waste product, to maintain acid-base balance.

**Acid-Base Balance:** Helps regulate blood pH by adjusting  $\text{CO}_2$  levels.

**Thermoregulation:** Assists in temperature regulation through heat loss during exhalation.

**Voice Production:** Facilitates sound generation through the vocal cords.

#### **7. Common Respiratory Disorders:**

**Asthma:** Characterized by inflammation and constriction of the airways, leading to difficulty breathing.


**Chronic Obstructive Pulmonary Disease (COPD):** Includes conditions like emphysema and chronic bronchitis, causing long-term airflow obstruction.

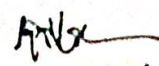
**Pneumonia:** An infection leading to inflammation of the alveoli, affecting gas exchange.

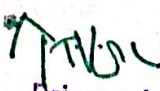
**8. Conclusion:** Respiration in mammals is an intricate process that is vital for sustaining life. It involves a coordinated system of anatomical structures and physiological mechanisms that ensure effective gas exchange, regulation of blood pH, and overall homeostasis. Understanding the details of respiration helps in diagnosing and managing respiratory disorders and highlights the importance of maintaining respiratory health.

### **REPORT OF THE PROGRAMME**

The Departments of Zoology are conducted one Guest Lecture on "Respiration in Mammals" dated 26<sup>th</sup> sep, 2022 in GDC, Mandapeta. The program was started at 11:00 am in Zoology Class Room. Special Chief guest Smt A.S.S Sowjanya, Principal and President of the programme Sri Dr.T.K.V. Srinivasa Rao sir and Vice Principal sir and Head of the department Sri

  
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Principal  
**Govt. Degree College  
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A. Ananda Rao Lecturer in Zoology, Sri CH. Abhinay, Lecturer in Botany and all B.Sc BZC Students participated in this programme.

Principal and President of the programme Sri Dr.T.K.V. Srinivasa Rao sir welcome wishes and details of the Program . Vice Principal A. Ananda Rao gave a short message to the students about the importance of Respiration in mammals.. Sri CH. Abhinay, Lecturer in Botany explain brief details of the program and introduce our Special Chief guest Smt A.S.S.Sowjanya, Lecturer in Zoology in GDC Ravulapalem. Taxonomy. All Dignitaries and Students are felicitating to Special Chief guest Sri K. Shiva Prasad Varma.

Finally vote of thanks was given by Sri Abhinay Chapala to all the members for participating in this program and Chif guest of this Guest lecture Smt A.S.S.Sowjanya. Later interact with the students. All Students are so Inspired this Programme and particularly Biology students are heartul thanks and also requested to beloved principal sir we are so inspired by the Guest and please conduct many more programmes like this.

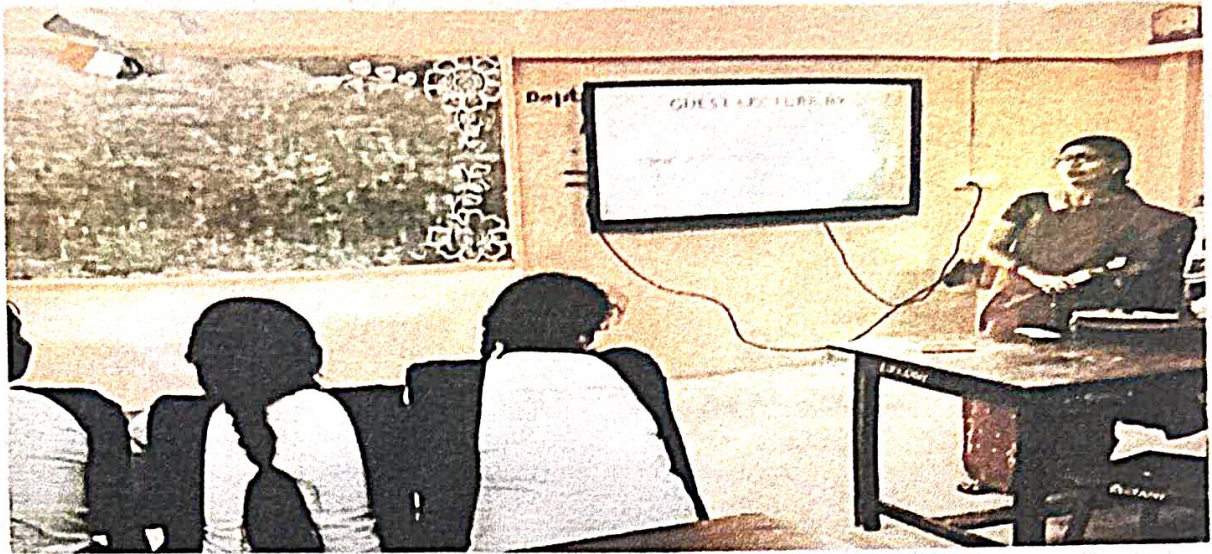
### PHOTOGRAPHS



Guest Lecture by Smt.A.S.S.Sowjanya Lecturer in Zoology GDC Ravulapalem.

*A. Ananda Rao*  
Principal  
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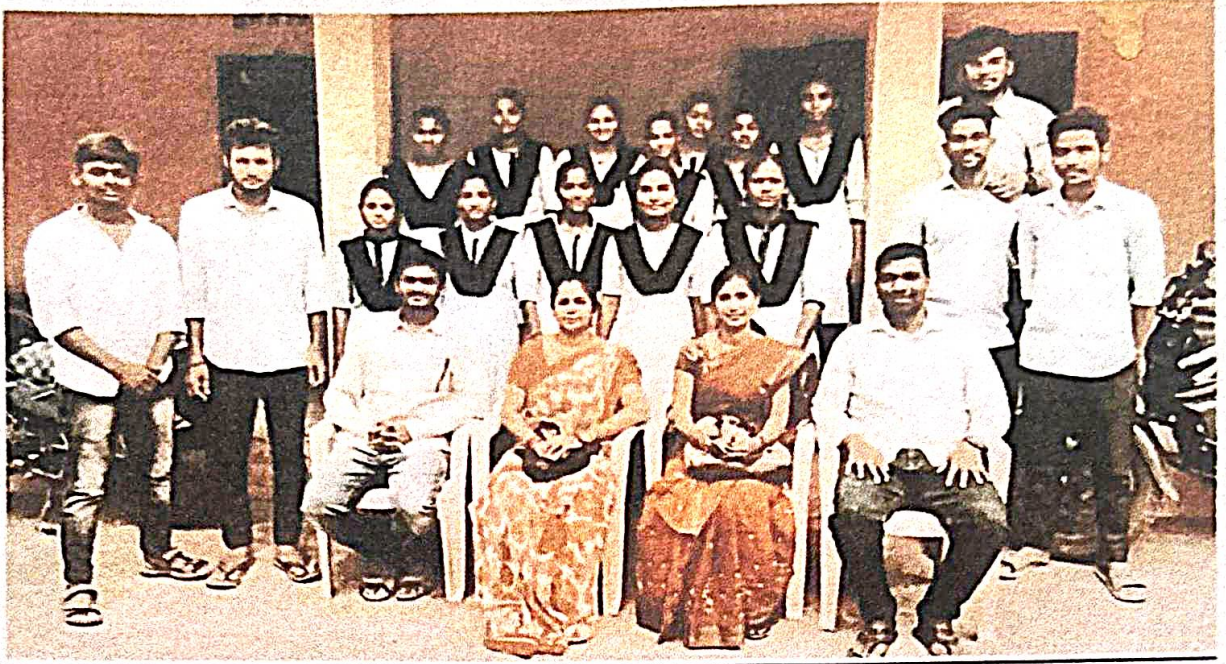
To felicitate honorable chief guest

*A. De*  
 IGAC Coordinator.  
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*Prakash*  
 Principal  
 Govt. Degree College  
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*Prakash*  
 Principal  
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Group photo with Chief Guest

**SIGNATURES OF THE STUDENTS:**

S.No	NAME OF THE STUDENT	CLASS	SIGNATURE
1	BADUGU SANDHYA		B. Sandhya
2	DEVAGALLA RAMYA VIGNESWARI		Devagalla Vigneswari
3	GANESHULA PARVATHI DEVI		G. Parvathi devi
4	GUNTURU SANDHAYA		G. Sandhaya
5	MEDISETTI SRI KAVYA		M. Sri Kavya
6	NILLA RAMESH		N. Ramesh
7	PYKETI MADHAVI SUNUTHA DEVI		P. Madhavi Sunutha Devi
8	SURAMPUDI GAYATRI		S. Gayatri
9	VALLURI RANI		V. Rani
10	D.SREE RAMYA		D. Sree Ramya

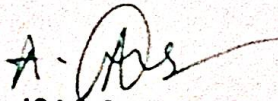
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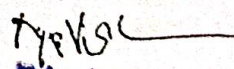
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11	D. BALA MANIKANTA		D. Bala manikanta
12	G. NAGA SANJAY		G. Naga Sanjay
13	G. PAUL SUDHAKAR BABU		G. Paul Sudhakar Babu
14	P. FLORENCE		P. Florence
15	P. RAJEEV		P. Rajeev
16	R. GOWTHAMI		R. Gowthami
17	T. REVATHI		T. Revathi
18	U. SATYA DURGA		U. Satya Durga
19	V. KONDABABU		V. Kondababu
20	Y. ISWARYA		Y. Iswarya

  
 IQAC Coordinator.  
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Ramachandrapuram-533255,  
[hkerlyce.ramachandrapuram@gmail.com](mailto:hkerlyce.ramachandrapuram@gmail.com)

Dr.K.C.Satya Latha MSc.,Ph.D.,  
Principal,GDC,RCPM

To,

The Principal,  
GDC,Mandapeta,  
Konaseema Dt.,

Sub: GDC, Ramachandrapuram-Department of Physics- Guest Lecture --Resource  
Person from your College-Request --Regarding.

\*\*\*\*

The department of Physics of our college intends to conduct a Guest Lecture on 24-08-2022 for the II B.Sc. Physics students of our College. In this connection, I request you to kindly spare the services of Dr. K.Srinivasa Rao, Lecturer in Physics of GDC,Mandapeta to deliver a lecture on "Digital Electronics" and enlighten the students of our college.This is submitted for your kind consideration and necessary action.

Thanking you Sir.

Principal

23/8/2022

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Ramachandrapuram.

Principal  
Govt. Degree College  
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Mandapeta,  
August 24, 2022.

From  
Dr.K.SrinivasaRao  
Lecturer in Physics  
Govt. Degree College  
Mandapeta – 533 308.

To  
The Principal  
Govt. Degree College  
Mandapeta – 533 308.

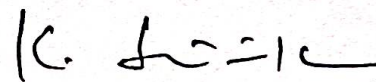
Subject: Request Letter to deliver guest lecture at Govt Degree College –  
Ramachandrapuram-Request -Regarding.

Respected Sir

I request you to permit me to present guest lecture at Govt. Degree College, Ramachandrapuram on the afternoon of 24<sup>th</sup> August 2022 as requested by the Principal, Govt Degree College, Ramachandrapuram. I am herewith enclosing the copy of the letter. I also request you to treat my absence tomorrow AN i.e 24-08-2022 AN as on duty.

Thanking you sir.

Yours Sincerely,

  
(Dr.K.SrinivasaRao) 24/8/22

  
Principal  
Govt. Degree College  
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Government Degree College, Mandapeta

Relieving Certificate

Dt:24-08-2022.

Certify that Dr.K.Srinivasa Rao, Lecturer in Physics of this college is relieved off his duties on the AN of 24-08-2022 to conduct a Guest Lecture on 24-08-2022 for the II B.Sc. Physics students of Govt Degree College, Ramachandrapuram on Digital Electronics as requested by the Principal, Govt Degree College, Mandapeta.

*[Signature]*  
PRINCIPAL

Principal  
Govt. Degree College  
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*[Signature]*  
Principal  
Govt. Degree College  
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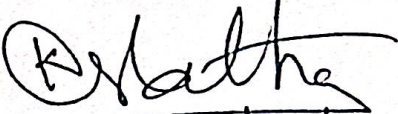
**Ramachandrapuram-533255,**  
**ikcriyee.ramachandrapuram@gmail.com**


Dr.K.C.Satya Latha MSc.,Ph.D.,  
Principal,GDC,RCPM

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**Attendance Certificate**

This is to certify that Dr. K. Srinivasa Rao, Lecturer in Physics, GDC, Mandapeta, has attended GDC, Ramachandrapuram on 24-08-2022 and delivered guest lecture on "Digital Electronics" for II B.Sc. Physics students of this college.

  
24/8/2022  
Principal  
**PRINCIPAL**  
**Govt. Degree College**  
**Ramachandrapuram**

  
Principal  
Govt. Degree College  
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## Digital Electronics

The digital electronics is a branch of electronics which deals the generation, processing and storage of digital signals. This helps in the analysis, design and construction of digital systems. Any variable that can be transmitted through space is called a signal.

We have studied about the analog signals such as electrical signals. On the other hand, there are another type of signals which are confined to a limited number of discrete levels of current or voltage. These signals are called as digital signals. These signals are coded as 0 or 1 numbers which correspond to OFF (low voltage) or ON (high voltage) conditions. These states are achieved by means of a switch.

The digital electronics was first invented by George Boole. The algebra which is used in digital electronics is called as Boolean algebra. In digital electronics, any information can be represented in terms of zeros and one's. It is represented by a bit. In this system, we use different types of number systems.

They are:

- (1) Decimal system (0 to 9)
- (2) Binary system (0 or 1)
- (3) Octal system (0 to 7)
- (4) Hexa-decimal system (0 to 9, A, B, C, D, E, F)

### Linear and Non-Linear Circuits

In previous chapters, we have studied the use of transistors as amplifiers of sinusoidal signal or of pulses. For every change in the input circuit, the linear amplifier produces a corresponding change in output circuit. Thus, the circuit acts as a linear circuit. There is another class of circuits where the transistor can be used as a switching circuit, i.e., it can be used to operate as ON and OFF switch. The action of a switching circuit is only to show the presence or absence of the output in accordance with certain magnitude of input. The operation of a switching circuit is non-linear i.e., the magnitude and waveform of output have no relation with those of input. The switching circuit represents mere ON or OFF switch action.

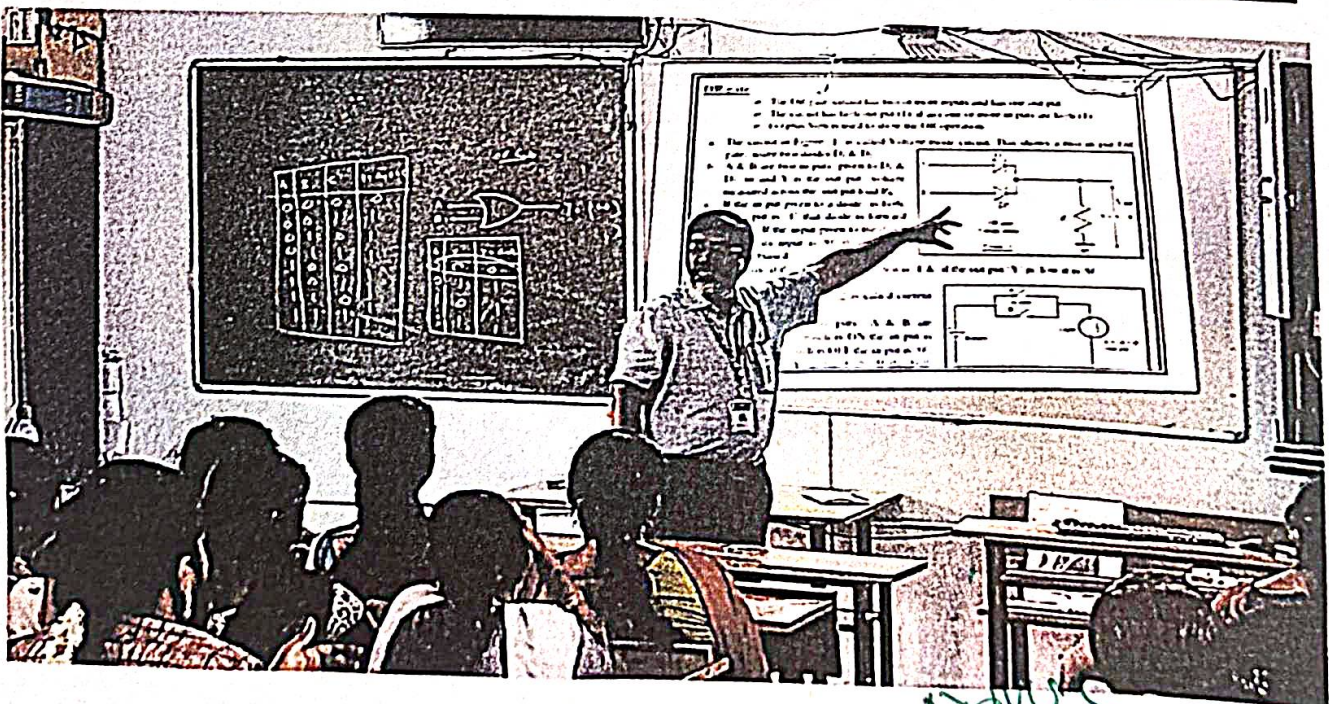
### Logic Gates

A switch which can be closed or opened is known as a gate. The gate has two possible states.

  
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# GOVERNMENT DEGREE COLLEGE RAMACHANDRAPURAM



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# EXTENSION LECTURE

BY

**Mr. N.S.V. KIRAN KUMAR**  
**Lecturer in Mathematics**  
**Department of Mathematics**  
**GOVERNMENT DEGREE COLLEGE**  
**MANDAPETA**

**TOPIC : GROUPS**  
**VENUE : GOVERNMENT DEGREE COLLEGE, RAVULAPALEM**  
**Dr. B.R. AMBEDKAR KONASEEMA DISTRICT**  
**DATE : September 08, 2023**  
**TIME : 10 AM to 12 Noon.**

## TOPIC SYNOPSIS

**Binary operation:** An operation 'o' is said to be binary on a non-empty set G if for all  $a, b \in G$  then  $a \circ b \in G$ .


**Example:**

1. Addition (+) is a binary operation on set of Natural Numbers 'N'.
2. Subtraction (-) is not a binary operation on N. Since for  $a = 5, b = 9 \in N$  then  $a + b = 5 + 9 = 14 \in N$  but  $a - b = 5 - 9 = -4 \notin N$

**Algebraic Structure:** A non-empty set together with one or more than one binary operation is called algebraic structure.

**Examples:**

1.  $(R, +), (R, \cdot)$  is an Algebraic Structure where R is set of Real Numbers.
2.  $(N, +), (Z, +), (Q, +)$  are algebraic structures but  $(N, -), (Z, \div)$  are not an algebraic structures.
3. Division ( $\div$ ) is not a binary operations on Z. Since for  $a = 2, b = 3 \in Z$  but  $2 \div 3 = \frac{2}{3} \notin Z$ . Therefore  $(Z, \div)$  is not an Algebraic structure.
4. Multiplication is a Binary operation on the set of Rational numbers Q. For  $a = \frac{2}{3}$  and  $b = \frac{4}{7} \in Q$  then  $a \cdot b = \frac{2}{3} \cdot \frac{4}{7} = \frac{6}{21} \in Q$ . Therefore  $(Q, \cdot)$  is an Algebraic Structure.

  
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**Closure Property:**  $\forall a, b \in G \Rightarrow aob \in G$ .

**Example:**

1.  $(\mathbb{N}, +)$ ,  $(\mathbb{Z}, +)$  are satisfies Closure Property.
2.  $(\mathbb{N}, -)$  does not satisfies Closure Property. Since for  $2 \in \mathbb{N}$  and  $3 \in \mathbb{N}$  but  $2 - 3 = -1 \notin \mathbb{N}$

**Associative Property:**  $a o (b o c) = (a o b) o c \quad \forall a, b, c \in G$

**Example:**  $(\mathbb{N}, +)$ ,  $(\mathbb{Z}, +)$ ,  $(\mathbb{R}, +)$ ,  $(\mathbb{Q}, +)$  are satisfies Associative Property.

**Identity Properties:** Let  $S$  be a non-empty set and 'o' be a binary operation on  $S$ .

- (i) If there exists an element  $e_1 \in S$  such that  $e_1 o a = a$  for  $a \in S$  then ' $e_1$ ' is called a left identity of  $S$  w.r.t. the operation 'o'.
- (ii) If there exists an element  $e_2 \in S$  such that  $a o e_2 = a$  for  $a \in S$  then ' $e_2$ ' is called a right identity of  $S$  w.r.t. the operation 'o'.
- (iii) If there exists an element  $e \in S$  such that  $e$  is both a left and right identity of  $S$  w.r.t. 'o' i.e.  $a o e = e o a = a$ , then ' $e$ ' is called an identity of  $S$ .

**Example:**


1.  $(\mathbb{Z}, +)$  is satisfies Identity Property. Since  $\forall a \in \mathbb{Z} \exists$  an element  $0 \in \mathbb{Z}$  such that  $a + 0 = 0 + a = a$ .
2.  $(\mathbb{N}, +)$  is not satisfies identity Property. Since  $\forall a \in \mathbb{N} \exists$  an element  $0 \notin \mathbb{N}$  such that  $a + 0 = 0 + a = a$ .
3. But  $(\mathbb{N}, \cdot)$  satisfies Inverse Property. Since  $\forall a \in \mathbb{N} \exists$  an element  $1 \in \mathbb{N}$  such that  $a \cdot 1 = 1 \cdot a = a$ .

**Inverse Property:** Let  $S$  be a non-empty set and 'o' be a binary operation on  $S$  with identity element 'e'

- (i) An element  $a \in S$  is said to be left invertible or left regular if there exists an element  $b \in S$  such that  $b o a = e$ .  $b$  is called a left inverse of ' $a$ ' w.r.t. 'o'.
- (ii) An element  $a \in S$  is said to be right invertible or right regular if there exists an element  $b \in S$  such that  $a o b = e$ .  $b$  is called a right inverse of ' $a$ ' w.r.t. 'o'.
- (iii) An element  $b \in S$  which is both a left inverse and right inverse of ' $a$ ' i.e.  $a o b = b o a = e$  is called an inverse of ' $a$ ' and ' $a$ ' is said to be invertible or regular.

**Example:**

1.  $(\mathbb{Z}, +)$  is satisfies Inverse Property. Since  $\forall a \in \mathbb{Z} \exists$  an element  $-a \in \mathbb{Z}$  such that  $a + (-a) = (-a) + a = 0$ .
2.  $(\mathbb{N}, +)$  is not satisfies Inverse Property. Since  $\forall a \in \mathbb{N} \exists$  an element  $-a \notin \mathbb{N}$  such that  $a + (-a) = (-a) + a = 0$ .
3.  $(\mathbb{Z}, \cdot)$ ,  $(\mathbb{N}, \cdot)$  are not satisfies inverse property. Since  $2 \in \mathbb{N}$  and  $\mathbb{Z} \ni$  an element  $\frac{1}{2} \notin \mathbb{N}$  and  $\notin \mathbb{Z}$  such that  $2 \cdot \frac{1}{2} = \frac{1}{2} \cdot 2 = 1$ .
4.  $(\mathbb{R}, \cdot)$  is not satisfies inverse property. Since  $0 \in \mathbb{R} \ni$  an element  $\frac{1}{0}$  is undefined.  $\therefore$  '0' has no multiplicative inverse. Similarly  $(\mathbb{Q}, \cdot)$  is not satisfies inverse property.
5.  $\mathbb{R}^*$  is the set of non-zero real numbers i.e.  $\mathbb{R}^* = \mathbb{R} - \{0\}$ .  $\therefore (\mathbb{R}^*, \cdot)$  is satisfies Inverse Property.

  
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**Abelian Property or Commutative Property:**  $\forall a, b \in G \Rightarrow a \circ b = b \circ a$

**Example:**  $(\mathbb{N}, +)$ ,  $(\mathbb{Z}, +)$ ,  $(\mathbb{Q}, \cdot)$ ,  $(\mathbb{R}, \cdot)$  are satisfies Abelian and Commutative Property.

**Groupoid:** A non – empty set  $G$  is said to be Groupoid w.r.t to the operation ‘ $\circ$ ’ if it satisfies Closure Property.

**Example:**

1.  $(\mathbb{N}, +)$ ,  $(\mathbb{Z}, +)$  are satisfies Closure Property.  $\therefore (\mathbb{N}, +)$ ,  $(\mathbb{Z}, +)$  are Groupoid w.r.t. ‘ $+$ ’
2.  $(\mathbb{N}, -)$  does not satisfies Closure Property. Since for  $2 \in \mathbb{N}$  and  $3 \in \mathbb{N}$  but  $2 - 3 = -1 \notin \mathbb{N}$ .  $\therefore (\mathbb{N}, -)$  is not a Groupoid w.r.t. ‘ $-$ ’

**Semi-Group:** A non – empty set  $G$  is said to be a semi-group w.r.t. operation ‘ $\circ$ ’ if itsatisfies Closure Property and Associative Property.

**Example:**

1.  $(\mathbb{N}, +)$ ,  $(\mathbb{Z}, +)$ ,  $(\mathbb{R}, \cdot)$ ,  $(\mathbb{Q}, \cdot)$  are satisfies Closure and Associative Property.  
 $\therefore (\mathbb{N}, +)$ ,  $(\mathbb{Z}, +)$ ,  $(\mathbb{R}, \cdot)$ ,  $(\mathbb{Q}, \cdot)$  are Semi-group.

**Monoid:** A non – empty set  $G$  is said to be a Monoid w.r.t to the operation ‘ $\circ$ ’ if it satisfies Closure Property, Associative Property and Identity Property.

**Example:**

1.  $(\mathbb{N}, +)$  is not a Monoid. Since  $\mathbb{N}$  satisfies Closure Property and Associative Property but not Identity Property i.e. Identity element w.r.t ‘ $+$ ’ is  $0 \notin \mathbb{N}$ .
2.  $(\mathbb{N}, \cdot)$  is Monoid.
3.  $(\mathbb{Z}, \cdot)$ ,  $(\mathbb{Z}, +)$ ,  $(\mathbb{R}, \cdot)$ ,  $(\mathbb{R}, +)$ ,  $(\mathbb{Q}, \cdot)$ ,  $(\mathbb{Q}, +)$  are Monoid

**Group :** A non-empty set  $G$  is said to be a Group w r t a Binary operation ‘ $\circ$ ’ if itsatisfies the Closure Property, Associative Property, Identity Property and Inverse Property.

**Example:**

1.  $(\mathbb{Z}, +)$ ,  $(\mathbb{R}, +)$ ,  $(\mathbb{Q}, +)$  are Group. But  $(\mathbb{Z}, \cdot)$ ,  $(\mathbb{R}, \cdot)$ ,  $(\mathbb{Q}, \cdot)$  are not Group
2.  $(\mathbb{R}^*, \cdot)$ ,  $(\mathbb{Q}^*, \cdot)$  are Group.

**Abelian Group or Commutative Group:**  $G$  is a group w.r.t. binary operation ‘ $\circ$ ’ and it satisfies the Abelian property w.r.t. same operation ‘ $\circ$ ’ then  $G$  is called Abelian Group or Commutative Group.

**Example:**


1.  $(\mathbb{Z}, +)$ ,  $(\mathbb{R}, +)$ ,  $(\mathbb{Q}, +)$  are Abelian Group.
2.  $(\mathbb{R}^*, \cdot)$ ,  $(\mathbb{Q}^*, \cdot)$  are Abelian Group.

**Finite and Infinite Group:** If the set  $G$  contains a finite number of elements then the group  $(G, \circ)$  is called a finite group. Otherwise the group  $(G, \circ)$  is called a infinite group.

**Left Cancellation Law:** For any  $a \neq 0$ ,  $b, c$  in a group  $G$  and  $b = a \Rightarrow = c$

**Right Cancellation Law:** For any  $a \neq 0$ ,  $b, c$  in a group  $G$  and  $b a = c a \Rightarrow b = c$

**Theorem:** In a group  $G$ , identity element is unique.

  
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**Theorem: In a group G, inverse of any element is unique.**

Show that the set of integers  $Z$  form a Group w.r.t the operation  $*$  defined by  $a * b = a + b - 1$  for all  $a, b$  in  $Z$

Prove that the set  $G$  of rational (real) numbers other than 1, with operation such that  $a \oplus b = a + b - ab$  for  $a, b \in G$  is an abelian group. Hence show that  $x = 3/2$  is a solution of the  $4 \oplus 5 \oplus x = 7$ .

**Solution:**  $G (=Q)$  is the set of rational (real) numbers other than 1.

$\oplus$  is the operation consider on  $G$  as  $a \oplus b = a + b - ab$  for  $a, b \in G$

Show that set  $Q_+$  of all positive rational numbers forms an abelian group under the composition defined by ' $\circ$ ' such that  $a \circ b = (ab)/3$  for  $a, b \in Q$

Show that  $R = \{ a + b\sqrt{2} : a, b \in Q \}$  is a commutative group w.r.t addition.

Prove that the set of matrices  $A_\alpha = \begin{pmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{pmatrix}$   $\alpha \in R$  forms a group w.r.t. matrix multiplication if  $\cos \theta = \cos \phi \Rightarrow \theta = \phi$

**Exercise:** Show that the set  $G = \{x/x = 2^a 3^b \text{ and } a, b \in Z\}$  is a group under multiplication.

**Theorem:** Let  $G$  be a group  $G$ . For  $a, b \in G$ ,  $(a b)^{-1} = b^{-1} a^{-1}$ .


**Theorem:** Cancellation laws hold in a group

Let  $G$  be a group. Then for any  $a \neq 0, b, c \in G$ ,  $a b = a c \Rightarrow b = c$  (Left cancellation law) and  $b a = c a \Rightarrow b = c$  (Right cancellation law)

**Theorem:** In a group  $G$  ( $\neq \emptyset$ ), for  $a, b, x, y \in G$ , the equation  $ax = b$  and  $ya = b$  have unique solutions .

**Prove that the set of  $n^{\text{th}}$  roots of unity under multiplication form a finite group.**

**Show that the set of fourth roots of unity form an abelian group w.r.t. multiplication.**

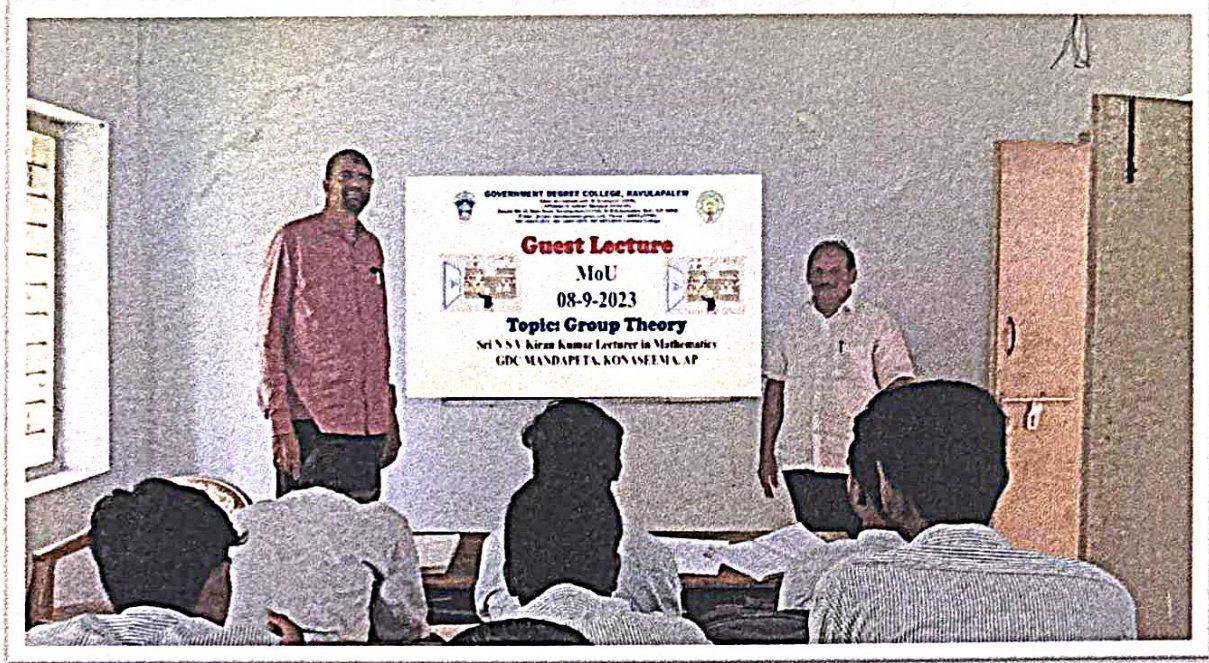
  
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E-Mail : jkcjyec.ravulapalem@gmail.com, Phone : 08855-257061  
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### Guest Lecture



MoU  
08-9-2023



### Topic: Group Theory

Sri N S V Kiran Kumar Lecturer in Mathematics  
GDC MANDAPETA, KONASEEMA. AP

*Principal*  
PRINCIPAL

Government Degree College  
Ravulapalem-533238, E.G.Dt.

*K. N. V. S.*  
Principal  
Govt. Degree College  
MANDAPETA - 533 308.



377  
A1

**Letter for MoU Guest Lecture**

**From:**

The principal  
Government Degree College,  
Ravulapalem.  
B R Abedker Konaseema Dist AP

**Date:05-9-2023**

**To,**

The principal.  
Government Degree College,  
Mandapeta.  
B R Abedker Konaseema Dist AP


Respected Sir,


I am bringing to your kind notice that our Mathematics Department was planned to conduct a MoU Guest lecture (As a part of MoU agreement with the Department of Mathematics of Government Degree College, Mandapeta.) In this context, I request you to kindly relieve on 08-9-2023 (Friday) with your respective Mathematics Lecturer Sri N S V KIRAN KUMAR at 10AM in MANA TV Room of our College. I request you to kindly relieve him on the above said date.

Thanking you

H. S. V

05-9-23

  
PRINCIPAL  
Government Degree College  
Ravulapalem-533238, E.G.Dt.

  
Principal  
Govt. Degree College  
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# GOVERNMENT DEGREE COLLEGE





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Mandapeta. East godavari District , AP.

DATE: 08--09-2023.

## RELIEVING LETTER

This is to certify that Sri N.S.V. KIRAN KUMAR, Lecturer in Mathematics of this college is relieved of his duties on F.N. of 08 -09-2023 to attend the Guest Lecture at Government Degree College, Ravulapalem on 08-09-2023.

  
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Principal  
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E-Mail : jkr/jyc.ravulapalem@gmail.com, Phone : 08555-257061  
ISO 50001:2011, ISO 14001:2015, ISO 9001:2015 Certified College



To  
The Principal  
Government Degree College, Mandapeta  
Kona seems Dist. AP

Dt: 08-09-2023  
Ravulapalem

### Attendance Certificate

This is to certify that Sri ~~N~~ S V Kiran Kumar, Lecturer in Mathematics, Government Degree College, Mandapeta attended as Resource Person and delivered a Guest Lecture on "GROUP THEORY" in II B.Sc. Class Room conducted by the Department of Mathematics, Government Degree College, Ravulapalem as a part of MoU with the college on 08-09-2023 from 10AM to 12PM.

HOD Mathematics  
Government Degree College  
Ravulapalem  
• HOD OF MATHEMATICS  
Government Degree College  
Ravulapalem

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Government Degree College  
Ravulapalem

Date :08-9-2023

Ravulapalem

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Government degree College, Ravulapalem. Kona Seema dist.

Activity: MoU Guest Lecture

Resource person: K S Kiran Kumar

Lecturer in Mathematics GDC Mandapeta, Kona seem Dist.


Sl. No	Name of the student	Reg Number	Signature
1.	A. Satish	221047102001	A. Satish
2.	D. Ganesh	221047102002	D. Ganesh
3.	N. Durga prasad	221047102009	N. Durga prasad
4.	T. Sai Sri Ram	221047102012	T. Sai Sri Ram
5.	P. L. NARASIMHA	221047102011	P. L. NARASIMHA
6.	A. Satish	221047102001	A. Satish
7.	G. Kiran Kumar	221047102005	G. Kiran Kumar
8.	N. Harika Lakshmi	221047102006	N. Harika Lakshmi
9.	D. Lakshmi	221047102003	D. Lakshmi
10.	K. Swapna	221047102008	K. Swapna
11.	T. Venu madhavi	221047102013	T. Venu madhavi
12.	Y. Pavan	221047102014	Y. Pavan
	K. prasanna	221047102007	K. prasanna

Signature of the Resource person:

Signature of HoD

Signature IQAC

Principal

  
Principal  
Govt. Degree College  
MANDAPETA - 533 308.



# GUEST LECTURE

BY

**Mr. B.SRINIVASA RAO**  
**Lecturer in Mathematics**  
**Department of Mathematics**  
**GOVERNMENT DEGREE COLLEGE**  
**RAVULAPALEM**

**TOPIC : BASSI AND DIMENSION**  
**VENUE : GOVERNMENT DEGREE COLLEGE, MANDAPETA**  
**Dr. B.R. AMBEDKAR KONASEEMA DISTRICT**  
**DATE : February 21, 2024**  
**TIME : 10 AM to 12 Noon.**

## TOPIC SYNOPSIS

**Basis of a vector space:** A sub set  $S$  of a vector space  $V(F)$  is said to be a basis of  $V(F)$  IF

1.  $S$  is linearly independent

2.  $L(S) = V(F)$  i.e, Vector space  $V(F)$  generated by  $S$ .

**Example:** 1.  $S = \{ (1, 0, 0), (0, 1, 0), (0, 0, 1) \}$  is a basis of the vector space  $V_3(F)$ .

**Solution:** To show that  $S = \{ (1, 0, 0), (0, 1, 0), (0, 0, 1) \}$  is a basis of the vector space  $V_3(F)$

1.  $S$  is linearly independent:  $\exists$  scalrs  $a, b, c \in F$  such that  $a(1, 0,$


$$0) + b(0, 1, 0) + c(0, 0, 1) = O = (0, 0, 0)$$

$$\Rightarrow (a + 0 + 0, 0 + b + 0, 0 + 0 + c) = (0, 0, 0)$$

$$\Rightarrow (a, b, c) = (0, 0, 0) \Rightarrow a = 0, b = 0, c = 0$$

$\therefore S$  is linearly independent.

2.  $L(S) = V_3(F)$ : Clearly  $L(S) \subseteq V_3(F)$ ----- (A)

  
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Now to show that  $V_3(F) \subseteq L(S)$

For all  $\alpha = (x, y, z) \in V_3(F) \Rightarrow$

$$\begin{aligned}(x, y, z) &= (x, 0, 0) + (0, y, 0) + (0, 0, z) \\ &= x(1, 0, 0) + y(0, 1, 0) + z(0, 0, 1) \in L(S)\end{aligned}$$

$$(x, y, z) \in L(S) \Rightarrow \alpha \in L(S)$$

$$\therefore V_3(F) \subseteq L(S) \text{-----(B)}$$

From (A) & (B)  $L(S) = V_3(F)$

$\therefore S = \{ (1, 0, 0), (0, 1, 0), (0, 0, 1) \}$  is a basis of the vector space  $V_3(F)$

Note:  $\{ (1, 0), (0, 1) \}$  is a basis of the vector space  $V_2(F)$ .

Definition: (Finite Dimensional Vector space)

A Vector space  $V(F)$  is said to be finite dimensional if there exist a finite subset  $S$  of  $V(F)$  such that  $L(S) = V(F)$ .

Example:  $V_n(F)$  is finite dimensional vector space.

Definition: (Dimension of a vector space):

In a finite dimensional vector space  $V(F)$  the number of basis elements is called Dimension of the vector space  $V(F)$  and is denoted by  $\dim V(F)$ .

Example:  $V_n(F)$  is finite dimensional vector space and its basis

$$\{(1, 0, 0, \dots, 0), (0, 1, 0, \dots, 0), \dots, (0, 0, \dots, 1)\} \text{ Number of basis elements} = n$$

$$\dim V_n(F) = n.$$

Theorem (Existence of Basis theorem):

Every finite dimensional vector space has a basis.

Theorem (Basis extension theorem)

In a finite dimensional vector space  $V(F)$  prove that a linearly independent set is a basis or it can be extended to form a basis of  $V(F)$ .

  
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**Theorem (Invariance theorem):**


If  $V(F)$  is a finite dimensional vector space then prove that any two bases have same number of elements.

**Theorem:** If  $W_1$  and  $W_2$  are two sub spaces of a finite dimensional vector space  $V(F)$  then prove that

$$\dim (W_1 + W_2) = \dim W_1 + \dim W_2 - \dim(W_1 \cap W_2).$$

**Problems:**

1. Show that the set of vectors  $\{ (1, 1, 2) (1, 2, 5) (5, 3, 4) \}$  not a basis of  $R^3$ .
2. Show that the set of vectors  $\{ (1, 2, 1) (2, 1, 0) (1, -1, 2) \}$  form a basis of  $R^3$ .
3. Show that the set of vectors  $\{ (2, 1, 0) (2, 1, 1) (2, 2, 1) \}$  form a basis of  $R^3$  and express the vector.

  
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# GOVERNMENT DEGREE COLLEGE

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MANDAPETA - 533308 Dr. B.R Ambedkar Konaseema (dist), Andhra Pradesh



Date: 20-02-2024

From

The Principal

Government Degree College,

Mandapeta.

To

The Principal

Government Degree College,

Ravulapalem.

Sir,

Sub: Government Degree College, Mandapeta – Guest Lecture on “Basis and Dimensions” – Mr. B. Srinivasarao, Lecturer in Mathematics of your college on 21-02-2024 – Request – Regarding.

I would like to bring your kind notice that our Mathematics Department has MoU with your Mathematics Department for “Promoting and Enrichment of Teaching – Learning Process”. As a part of MoU we propose to organize a Guest Lecture program on “Basis and Dimensions” on 21-02-2024. In this connection I request you to depute Mr. B.Srinivasarao, Lecturer in Mathematics of your Esteemed Institution on 21-02-2024.

Thanking you,

Yours Sincerely,

Principal  
Govt. Degree College  
MANDAPETA - 533 308.

Copy to

Mr. B. Srinivasarao,

Lecturer in Mathematics

GDC, Ravulapalem.

Principal  
Govt. Degree College  
MANDAPETA - 533 308.







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MANDAPETA -533308 Dr. B.R Ambedkar Konaseema (dist), Andhra Pradesh



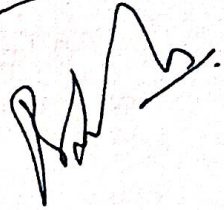
Date: 21-02-2024


### **ATTENDANCE CERTIFICATE**

This is to certify that Mr. B. Srinivasarao, Lecturer in Mathematics, Government Degree College, Mandapeta has attended in our college on 21-02-2024 and delivered Guest Lecture on "Basis and Dimensions" for II B.Sc.(MPC & MPCs) IV Semester students of this college.

  
PRINCIPAL

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MANDAPETA - 533308 Dr. B.R Ambedkar Konaseema (dist), Andhra Pradesh



Activity : MoU Guest Lecture  
Resource Person : Sri B. Srinivasarao  
Lecturer in Mathematics  
Government Degree College,  
Ravulapalem

S.No.	Name of the Student	Reg. Number	Signature
1	N Y Padmavathi	220637101001	N. Yamuna padmavathi
2	N H V Prakash	220637101002	N. hemanth
3	R Lalitha	220637101003	R. Lalitha
4	B Mohan Krishna	220637101004	B. M. Krishna
5	B Gowthami	220637101005	B. Gowthami
6	Jonna Sai Ram	220637101006	J. Sai Ram
7	K S B Rushi	220637101007	K.S.B. Rushi
8	Makala Ramya	220637101008	M. Ramya
9	M Lakshmi	220637101009	M. Lakshmi
10	S Vardhini Devi	220637101010	S. Vardhini Devi

Signature of the Resource Person

Signature of the HOD

Principal  
Govt. Degree College  
MANDAPETA - 533 308.

Signature of the Principal

Principal  
Govt. Degree College  
MANDAPETA - 533 308.

N.S.V. KIRAN KUMAR  
LECTURER IN MATHEMATICS  
GOVERNMENT DEGREE COLLEGE  
MANDAPETA - 533308





## GOVERNMENT DEGREE COLLEGE, RAVULAPALEM

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ISO: 50001:2011, ISO 14001:2015, ISO 9001:2015 Certified College

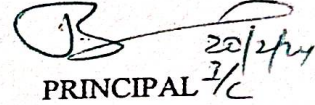


**Dr. K. JYOTHI**, M.Sc. Ph.D.,  
**PRINCIPAL**  
GOVERNMENT DEGREE COLLEGE,  
RAVULAPALEM, Dr.B.R.Ambedkar  
Konaseema District.

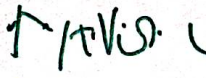
Phone: 08855-257061(O)  
Mobile: 9440301264  
Website: [www.gdcrpm.ac.in](http://www.gdcrpm.ac.in)  
E-Mail: jkerjyee.ravulapalem@gmail.com

### RELIEVING CERTIFICATE

Sri B.Srinivasa Rao, Lecturer in Mathematics is relieved off his duties on the A.N of 20.02.2024 to attend MOU Guest Lecture on "Basis and Dimensions" for II (B.Sc., (MPC & MPCS) IV Semester students February'2024 at Government Degree College, Mandapeta.

  
20/2/24  
PRINCIPAL

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RAVULAPALEM

  
Principal  
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[jkrjyec.mandapet@gmail.com](mailto:jkrjyec.mandapet@gmail.com)



### INVITED LECTURE

BY

**Dr. J. NEHRU NAIK**

M.A.,B.Ed.,B.Spl. Ed.,Ph.D.,D.Litt.

Lecturer in Economics

Government Degree College

Mandapeta

Dr.B.R.AmbedkarKonaseema Dist A.P533308

**Topic: Features of Economic Developments**

**Venue: Government Degree College**

**Ravulapalem,Dr. B.R. Abedkar Konaseema District**

**Date: 05-11-2022.**

*[Signature]*  
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## SYNOPSIS:

**Introduction** □ The term 'developing economies' or 'developing countries' are being used interchangeably. □ A developing country (or a low and middle income country (LMIC), less developed country, less economically developed country (LEDC), medium-industrialized country or underdeveloped country) is a country with a less developed to other countries. [ However, this definition is not universally agreed upon

A nation's GDP per capita compared with other nations can also be a reference point. In general, the United Nations accepts any country's claim of itself being 'developing'. □ a country that is poor and whose citizens are mostly agricultural workers but that wants to become more advanced socially and economically. □ Even though developing nations have very different backgrounds in terms of resources, history, demography, religion and politics, they still share a few common characteristics. Today, we will go over six common characteristics of developing economies.

**Low Per Capita Real Income** □ Low per capita real income is one of the most defining characteristics of developing economies. They suffer from low per capita real income level, which results in low savings and low investments. □ It means the average person doesn't earn enough money to invest or save money. They spend whatever they make. Thus, it creates a cycle of poverty that most of the population struggles to escape. The percentage of people in absolute poverty (the minimum income level) is high in developing countries. 4 **High Population Growth Rate** □ Another common characteristic of developing countries is that they either have high population growth rates or large populations. Often, this is because of a lack of family planning options, lack of sex education and the belief that more children could result in a higher labor force for the family to earn income. This increase in recent decades could be because of higher birth rates and reduced death rates through improved health care.

**High Rates of Unemployment** □ In rural areas, unemployment suffers from large seasonal variations. However, unemployment is a more complex problem requiring policies beyond traditional fixes. □ In India, With the gradual development of various sectors of the economy, the country started to generate employment opportunities for the people of the country. The volume of employment generated in India during the First, Second and Third Plan was to the extent of 70 lakh, 100 lakh and 145 lakh respectively

  
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[jkerjyee.mandapet@gmail.com](mailto:jkerjyee.mandapet@gmail.com)

### RELIEVING CERTIFICATE

This is to certify that Dr. J. NEHRU NAIK, Lecturer in Economics of this college is relieved on his normal duties on the A.N of 04-05-2022 to enable him to attend a Invited lecture on 05-11-2022 on "Features of Economic Development" at GDC Ravulapalem. This is tread as on duty.

u Sir



*[Signature]*  
Yours Sincerely  
Principal

Govt. Degree College  
MANDAPETA-533 308

*[Signature]*  
Principal  
Govt. Degree College  
MANDAPETA - 533 308.



# Government Degree College : Ravulapalem

## DEPARTMENT OF ECONOMICS

### Guest Lecturer Topic: "Features of Economic Development"

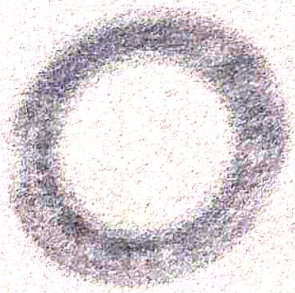
Sl.No.	Name of the Students	Branch	Signatures
1	BUDAM RAMU	BA HEP	B. Ramu
2	CHUNDRU PUSHKARINI	BA HEP	C. pushkarini
3	G VEERA VENKATA SATYANARAYANA	BA HEP	G. Satya Narayana
4	GUTTULA SATYA POORNA DEVI	BA HEP	satya purna devi
5	INDUBUKAYALA VENKANNA BABU	BA HEP	T. Venkana Babu
6	JALEM AJAY	BA HEP	J. AJAY
7	JILLELLA NAVEEN HARSHA	BA HEP	J. N. Harsha
8	KADALI ADILAKSHMI	BA HEP	K. Adilakshmi
9	KAMUJULA LAKSHMI PRASANNA	BA HEP	Lakshmi Prasanna
10	KONDRAPU VEERA VENKATA MOUNIKA	BA HEP	K. Monika
11	KOTA PRAVALIKA	BA HEP	K. pravalika
12	KOTTURU SRINIVASU	BA HEP	K. Srinivas
13	MADASU HEMANTH	BA HEP	M. hemanth
14	MUTYALA KUMAR VENKATA RAMANA	BA HEP	M. K. V. Ramana
15	PALIVELA SUNNY RAJU	BA HEP	P. sunny Raju
16	PAMARTHI DEVISRI PRASAD	BA HEP	P. devisri prasad
17	PAMIDIPALLI VINITHA	BA HEP	P. Vinitha
18	PRASANGI KRISHNA MAHA LAKSHMI	BA HEP	P. K. M. Lakshmi
19	SATYALA PUJITHA	BA HEP	S. pujitha
20	TAMARAPALLI V.S.N.S.BHASKARA RAO	BA HEP	T. Jyothi, prakash
21	TELU JYOTHI PRAKASH	BA HEP	T. prakash
22	UDDANDI GUNA VEERA VENKATA DEEP	BA HEP	U. G. V. Venkatesh Deep
23	VYRALA TRISHA	BA HEP	V. Trisha
24	M VENKATESWARA VINAY KUMAR	BA HEP	M. Vinay Kumar
25	BHARATHI SRINIVAS	BA HEP	B. Srinivas
26	BONAGALA JAYA KRISHNA	BA HEP	B. Krishna
27	GOLLAPALLI ABHINAY	BA HEP	G. Abhinay
28	GUTTULA ESWARA PRASAD	BA HEP	G. Prasad
29	ILLA SRIRAM	BA HEP	I. Sri Ram
30	KALDARI SWARNALATHA	BA HEP	K. Swarnalatha
31	K SAI CHANIKYA	BA HEP	K. Sai chanikya
32	KATE VIJAYA RAJKUMAR	BA HEP	K. Rajkumar
33	MEDISETTI DURGA SWAMI	BA HEP	M. Durga swami
34	PALLETI ARUNA	BA HEP	P. Aruna

T. K. Vis

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*[Faint, illegible text lines]*



*[Handwritten signature]*

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MANDAPETA -533308 Dr. B.R Ambedkar Konaseema (dist), Andhra Pradesh



### INVITED LECTURE BY

**K SUNDARA RAO** M.C.A., APSET  
Lecturer in Computer Applications  
Department of Computer Applications  
Government Degree College  
Mandapeta

**TOPIC: FUNDAMENTALS OF COMPUTERS AND NUMBER SYSTEMS**

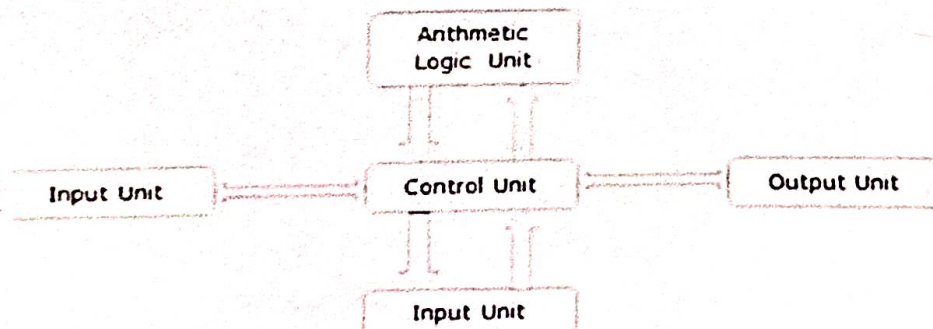
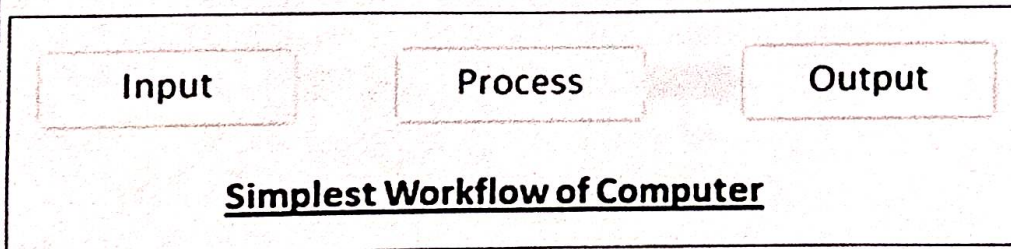
**VENUE: Government Degree College, Ravulapalem  
Dr. B.R. Ambedkar Konaseema Dist 533238**

**DATE: 08-09-2023**

**TIME: 10.00 AM TO 12.00 Noon**

#### Topic Synopsis

##### Basics of Computers - Introduction:



*[Signature]*  
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## Basics of Computers - Number System

The technique for representing and working with numbers is called **number system**.

The decimal **number system** is the most common number system.

Other popular number systems include

- ❖ **binary number system,**
- ❖ **octal number system,**
- ❖ **hexadecimal number system, etc.**

### Decimal Number System

decimal number system is a **base 10** number system having 10 digits from 0 to 9. This means that any numerical quantity can be represented using these 10 digits.

Decimal number system is also a **positional value system**. This means that the value of digits will depend on their position. Let us take an example to understand this.


Say we have three numbers – 734, 971 and 207. The value of 7 in all three numbers is different–

- In 734, value of 7 is 7 hundreds or 700 or  $7 \times 100$  or  $7 \times 10^2$
- In 971, value of 7 is 7 tens or 70 or  $7 \times 10$  or  $7 \times 10^1$
- In 207, value of 7 is 7 units or 7 or  $7 \times 1$  or  $7 \times 10^0$

The weight of each position can be represented as follows –

$10^5$	$10^4$	$10^3$	$10^2$	$10^1$	$10^0$
--------	--------	--------	--------	--------	--------

In digital systems, instructions are given through electric signals; variation is done by varying the voltage of the signal. Having 10 different voltages to implement a decimal number system in digital equipment is difficult. So, a number of systems that are easier to implement digitally have been developed. Let's look at them in detail.

  
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## Binary Number System

The easiest way to vary instructions through electric signals is two-state system - on and off. On is represented as 1 and off as 0, though 0 is not actually a signal but a signal at a lower voltage. The number system having just these two digits - 0 and 1 - is called the **binary number system**.

Each binary digit is also called a **bit**. The binary number system is also a positional value system, where each digit has a value expressed in powers of 2, as displayed here.

$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
-------	-------	-------	-------	-------	-------

In any binary number, the rightmost digit is called the **least significant bit (LSB)** and the leftmost digit is called **most significant bit (MSB)**.

Diagram illustrating the bit sequence 11010, where the leftmost bit is the Most Significant Bit (MSB) and the rightmost bit is the Least Significant Bit (LSB).

And decimal equivalent of this number is sum of product of each digit with its positional value.

$$11010_2 = 1 \times 2^4 + 1 \times 2^3 + 0 \times 2^2 + 1 \times 2^1 + 0 \times 2^0$$

$$= 16 + 8 + 0 + 2 + 0$$

$$= 26_{10}$$

Computer memory is measured in terms of how many bits it can store. Here is a chart for memory capacity conversion.

**Octal number system** has eight digits – 0, 1, 2, 3, 4, 5, 6 and 7. Octal number system is also a positional value system with where each digit has its value expressed in powers of 8, as shown here –

$8^5$	$8^4$	$8^3$	$8^2$	$8^1$	$8^0$
-------	-------	-------	-------	-------	-------

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*Dr. Vis*  
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## GOVERNMENT DEGREE COLLEGE, RAVULAPALEM

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E-Mail: principal\_ravulapalem@gmail.com, Phone: 08855 257061  
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified College



To  
The Principal  
Government Degree College, Mandapeta

On 08/09/2023  
Ravulapalem

### Attendance Certificate

This is to certify that Sri K Sundara Rao, Lecturer in Computer Applications attended as Resource Person and delivered a Guest Lecture on "Fundamentals of Computers" in Digital class Room conducted by the Department of Computer Science & Applications, Government Degree College, Ravulapalem as a part of MoU with the college on 08/09/2023 from 10AM to 12PM.

Ravulapalem  
Date 08-09-2023

HOD  
Department of Computer Science & Applications  
GOVERNMENT DEGREE COLLEGE  
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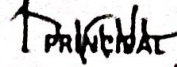



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Mandapeta, East godavari District, AP.

DATE: 08-09-2023.

## RELIEVING LETTER

This is to certify that Sri K. SUNDARA RAO, Lecturer in  
Computer Applications of this college is relieved of his duties on F.N. of  
08-09-2023 to attend the Guest Lecture at Government Degree College,  
Ravulapalem on 08-09-2023.

  
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Govt. Degree College  
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Principal  
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1	M. D. Chand	1 <sup>st</sup> BSc (Computer)
2	E. V. Rao	1 <sup>st</sup> BSc (Computer)
3	T. J. J.	1 <sup>st</sup> BSc (Computer)
4	M. J. J.	1 <sup>st</sup> BSc (Computer)
5	T. K. S.	1 <sup>st</sup> BSc (Computer)
6	G. S. S.	1 <sup>st</sup> BSc (Computer)
7	P. S. S.	1 <sup>st</sup> BSc (Computer)
8	L. S. S.	1 <sup>st</sup> BSc (Computer)
9	T. S. S.	1 <sup>st</sup> BSc (Computer)
10	T. S. S.	1 <sup>st</sup> BSc (Computer)
11	E. S. S.	1 <sup>st</sup> BSc (Computer)
12	V. S. S.	1 <sup>st</sup> BSc (Computer)
13	M. S. S.	1 <sup>st</sup> BSc (Computer)
14	A. S. S.	1 <sup>st</sup> BSc (Computer)
15	T. S. S.	1 <sup>st</sup> BSc (Computer)
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23	M. S. S.	1 <sup>st</sup> BSc (Computer)
24	A. S. S.	1 <sup>st</sup> BSc (Computer)
25	T. S. S.	1 <sup>st</sup> BSc (Computer)
26	V. S. S.	1 <sup>st</sup> BSc (Computer)
27	M. S. S.	1 <sup>st</sup> BSc (Computer)
28	P. S. S.	1 <sup>st</sup> BSc (Computer)
29	L. S. S.	1 <sup>st</sup> BSc (Computer)
30	T. S. S.	1 <sup>st</sup> BSc (Computer)

*(Signature)*

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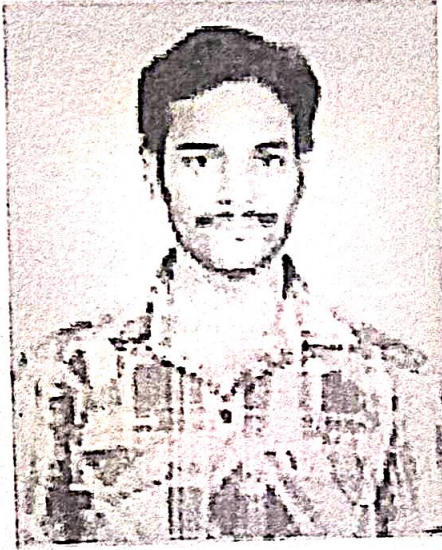


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## GUEST LECTURE

BY

**Sri. J. VEERRAJU** M.COM, B. ED, APSET

Lecturer in Commerce

Government Degree College

Mandapeta

Dr. B.R. Ambedkar Konaseema Dist. A.P.533308

**Topic: Fundamentals of GST**

**Venue: Government Degree College, Ravulapalem, Dr.  
B.R. Ambedkar Konaseema District**

**Date: 08-09-2023**

  
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## SYNOPSIS:

The Goods and Services Tax (GST) is a successor to VAT used in India on the supply of goods and service. Both VAT and GST have the same taxation slabs. It is a comprehensive, multistage, destination-based tax: comprehensive because it has subsumed almost all the indirect taxes except a few state taxes. Multi-staged as it is, the GST is imposed at every step in the production process, but is meant to be refunded to all parties in the various stages of production other than the final consumer and as a destination-based tax, it is collected from point of consumption and not point of origin like previous taxes

Goods and services are divided into 5 different tax slabs for collection of tax: 0%, 5%, 12%, 18% and 28%. However, petroleum products, alcoholic beverages, and electricity are not taxed under GST and instead are taxed separately by the individual state governments, as per the previous tax system. There is a special rate of 0.25% on rough precious and semi-precious stones and 3% on gold. In addition a cess of 22% or other rates on top of 28% GST applies on several items like aerated drinks, luxury cars and tobacco products. Pre-GST, the statutory tax rate for most goods was about 26.5%; post-GST, most goods are expected to be in the 18% tax range.


The tax came into effect from 1 July 2017 through the implementation of the One Hundred and First Amendment to the Constitution of India by the Government of India. 1 July is celebrated as GST Day. The GST replaced existing multiple taxes levied by the central and state governments.

## GOODS & SERVICE TAX

Goods and Services Tax (GST) is an indirect tax system introduced in India on July 1, 2017, which subsumed multiple indirect taxes levied by the central and state governments, such as VAT, excise duty, and service tax. GST is a value-added tax that is levied on the supply of goods and services, from the manufacturer to the consumer and is designed to create a common national market by eliminating barriers to interstate trade...

## OBJECTIVES OF GST

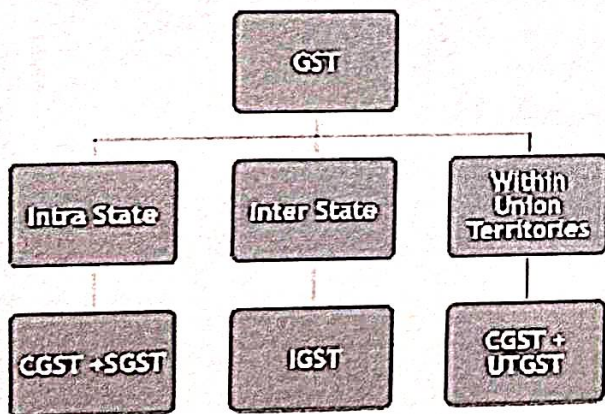
- One country - One tax
- Consumption-based tax instead of manufacturing
- Uniform registration, payment, and input credit
- Eliminating cascading effect
- Subsume all indirect taxes at central and state level
- Reduce tax evasion and corruption
- Increase productivity
- Increase tax-to-GDP ratio and revenue surplus
- Increase compliance
- Reducing economic distortions must be stamped as per the requirement of law.

  
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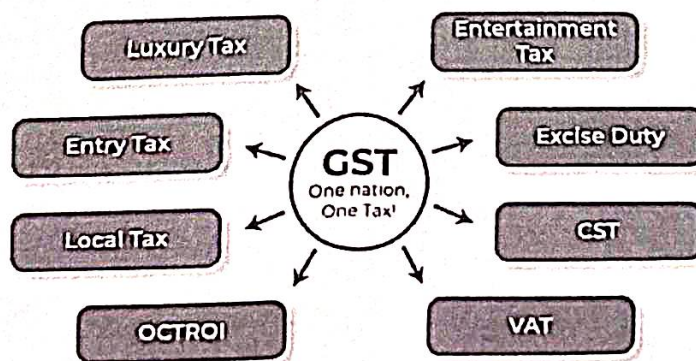


## Some special benefits of GST are as follows:

- GST has reduced the prices of several goods and services due to the elimination of multiple taxes and the availability of the input tax credit mechanism.
- GST has made Indian businesses more competitive by reducing the cost of production and making exports more competitive in the international market.
- GST has streamlined the movement of goods across states and simplified logistics and documentation for businesses.
- Under GST, taxpayers who do not exceed the threshold turnover limit are exempted from registration. There are also special schemes for small businesses which have an option to pay taxes at lower rates as well as undertake fewer compliances.
- GST has a robust IT system for online registration, filing of returns, payment of taxes, and claiming refunds. This has improved compliance and reduced tax evasion.

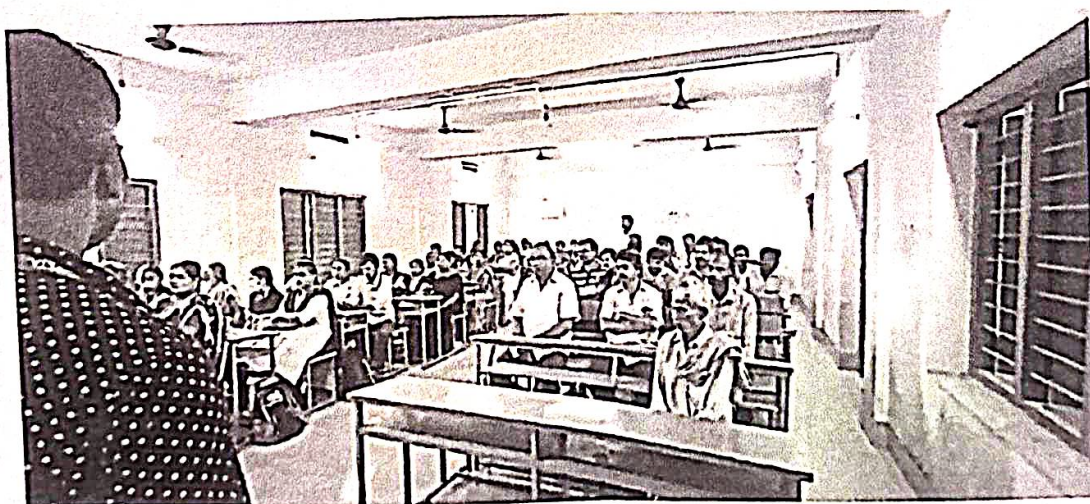


**GOODS AND SERVICE TAX (GST) IN INDIA**  
Scope of Goods & Services Tax



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## RELIEVING CERTIFICATE

This to certify that Me J. VEERRAJU, Lecturer in  
commerce Govt Degree College, Ravulapalem is relieved from his normal duties  
on the AN of 08-09-2023 for enable him to attend Guest Lecture on Measures of  
Development and their limitations at Government Degree College, Mandapeta

*J. Veeraju*  
Principal  
Govt. Degree College  
MANDAPETA - 533 308.



*J. Veeraju*  
PRINCIPAL  
Principal  
Govt. Degree College  
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Government Degree College, Mandapeta			
DEPARTMENT OF COMMERCE			
GUEST LECTURER TOPIC: FUNDAMENTALS OF GST			
Sl.no	Students name	Branch	Signatures
1	SYAM KUMAR	B.COM [CA]	Syam Kumar
2	S. POSHAJU	B.COM [CA]	P. Poitaju
3	V. SWAPNA	B.COM [CA]	V. Swapna
4	P. VAMSI	B.COM [CA]	P. Vamsi
5	P. SRILAKSHMI	B.COM [CA]	P. Sri Lakshmi
6	V. HEMANTH KUMAR	B.COM [CA]	V. HEMANTH KUMAR
7	R. CHANDU	B.COM [CA]	R. Chandu
8	V. KAVYA	B.COM [CA]	V. Kavya
9	V. SRILATHA	B.COM [CA]	V. Srilatha
10	T. NAGA RAJESH	B.COM [CA]	T. NAGA RAJESH
11	M. HEMA	B.COM [CA]	M. HEMA
12	K. DEVI MOULIKA	B.COM [CA]	K. D. Moulika
13	N. DURGA DEVI	B.COM [CA]	N. Durga Devi
14	N. KARUNA KUMAR	B.COM [CA]	N. Karuna Kumar
15	G. LAKSHMAN	B.COM [CA]	G. Lakshman
16	N. ANJALI	B.COM [CA]	N. Anjali
17	P. KAVYA SRI	B.COM [CA]	P. Kavya Sri
18	D. SUDHEER	B.COM [CA]	S. Sudheer
19	K.V.S. REEDY	B.COM [CA]	T. Nave
20	L.SAI KUMAR	B.COM [CA]	L. Sai Kumar
21	K. LAKSHMI PRASANNA	B.COM [CA]	PRASANNA
22	B. RAVI TEJA	B.COM [CA]	TEJA
23	D. KEERTHI PRABHA	B.COM [CA]	D. K. Prabha
24	B. VENKATA SAI	B.COM [CA]	Prabha
25	D. YASODA KRISHNA	B.COM [CA]	Krishna
26	B. VENKATESH	B.COM [CA]	Venkatesh
27	B. RAHUL	B.COM [CA]	B. Rahul
28	B. USHA MADHURI	B.COM [CA]	B. Umadhuri
29	CH. V. KRISHNA	B.COM [CA]	Ch. V. Krishna
30	CH. LAVANYA	B.COM [CA]	Ch. Lavanya





# GOVERNMENT DEGREE COLLEGE

MANDAPETA - 533308 Dr. B.R. Ambedkar Konaseema Dist., A.P.

Accredited with NAAC 'B' Grade

(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

[www.gdmandapeta.ac.in](http://www.gdmandapeta.ac.in) [injkerjyee.mandapet@gmail.com](mailto:injkerjyee.mandapet@gmail.com)



## GUEST LECTURE

BY

**Sri. R. VENKATESHWARLU M.com**

Lecturer in Commerce

Government Degree College

RAMACHANDRAPURAM

Dr. B.R. Ambedkar Konaseema Dist. A.P.533255

**Topic: INDUSTRY POLICY**

**Venue: Government Degree College**

**Mandapeta, Dr. B.R. Ambedkar Konaseema District**

**Date: 20-04-2023.**

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## SYNOPSIS:

Industrial Policy refers to the strategies adopted by the government for industrial development in the country. The government of India introduced its first industrial policy in 1948. The industrial ecosystem of the country has evolved since then.

Recently, the government announced its plan to introduce a new industrial policy. It will replace the 27-year-old existing policy. Its main aim will be to create jobs over the next two decades, promote foreign technology transfer and attract 100 billion dollars FDI annually.

## Objectives

The main objectives of the Industrial Policy of the Government in India are:

- to maintain a sustained growth in productivity;
- to enhance gainful employment;
- to achieve optimal utilisation of human resources;
- to attain international competitiveness; and
- to transform India into a major partner and player in the global arena.

## Need for New Industrial Policy

A coherent industrial policy enables the government to deal with emerging challenges. The advent of new technologies and changing labour market further make the ecosystem dynamic. Therefore, several structural and non-structural factors make the adoption of a new industrial policy necessary.

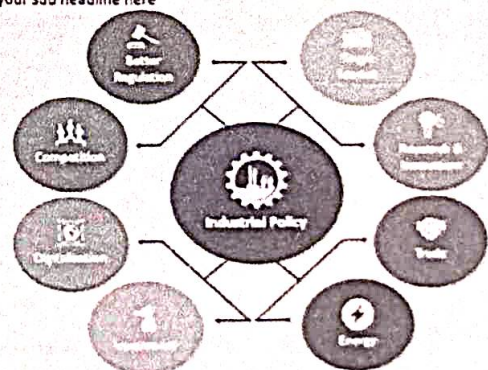
- Spurring Manufacturing Growth It
- Human Capital Formation
- Generate Complementarities
- Ensure optimum scale of Industrial Capacity
- Raise Exports

### INDUSTRIAL POLICY 1956

- This policy widened the scope of the public sector.
- It classified industries into three categories.
- The first category comprised 17 industries. These included railways, arms and ammunition, iron and steel and atomic energy.
- The second category comprised 12 industries which were envisaged to be progressively state owned but private sector was expected to supplement the efforts of the state.
- The Third category contained all the remaining industries and it was expected that private sector would initiate development of these industries but they would open for state as well.

### INDUSTRIAL POLICY

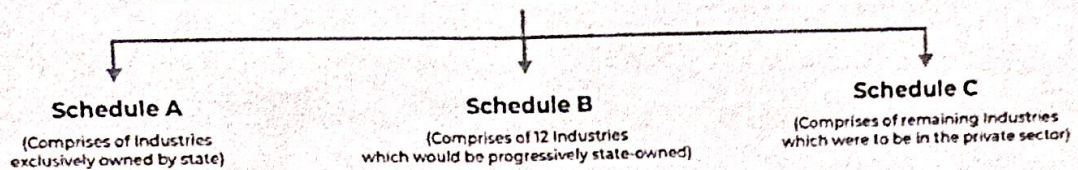
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### Classification of Industries as per IPR, 1956



### The Industrial Policy Resolution 1956,

#### industries were classified into three categories:

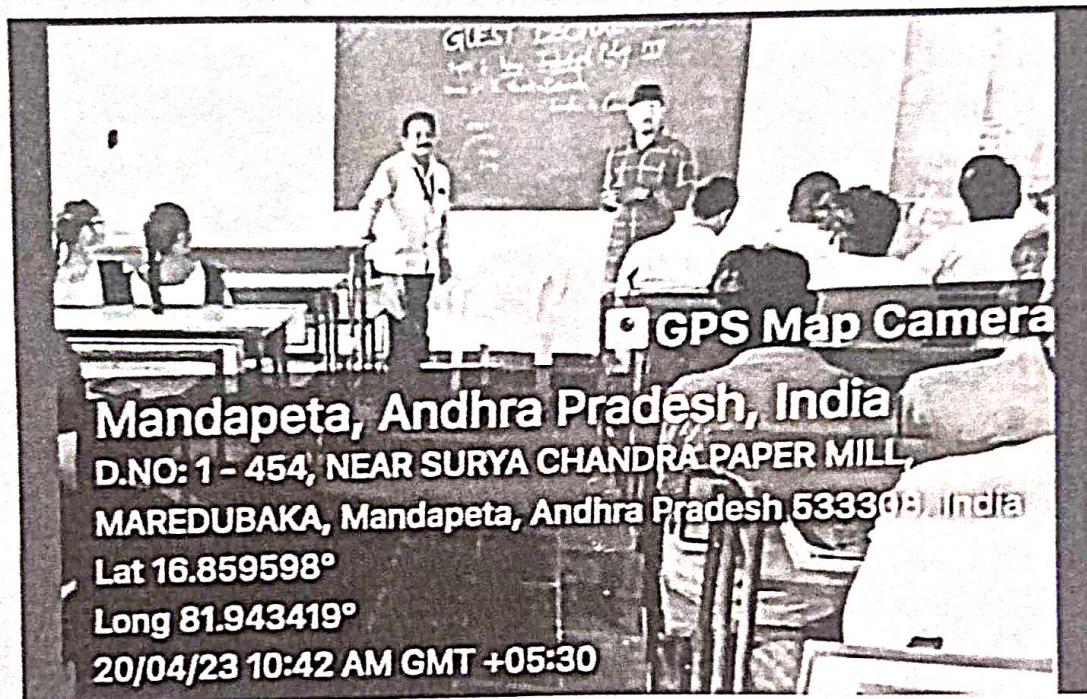
1. **Schedule A:** Only the Government can handle these industries. Some of these are atomic energy, electrical, iron and steel, and others.
2. **Schedule B:** These comprise road and sea transportation, machine tools, aluminum, chemicals including plastics and fertilisers, ferroalloys, and certain types of mining.
3. **Schedule C:** Under this category, the remaining industries and left to the private sector.

#### Industrial policies offer several benefits to a country's economy and society.

1. **Economic Growth:** By promoting industrialization, these policies can lead to increased production, job creation, and overall economic development.
2. **Diversification:** They help diversify the economy by developing various sectors, reducing dependence on a single industry or resource.
3. **Technological Advancement:** Industrial policies often encourage innovation and the adoption of new technologies, boosting productivity and competitiveness.
4. **Infrastructure Development:** They can lead to the development of essential infrastructure like roads, ports, and power supply, which benefits other sectors as well.

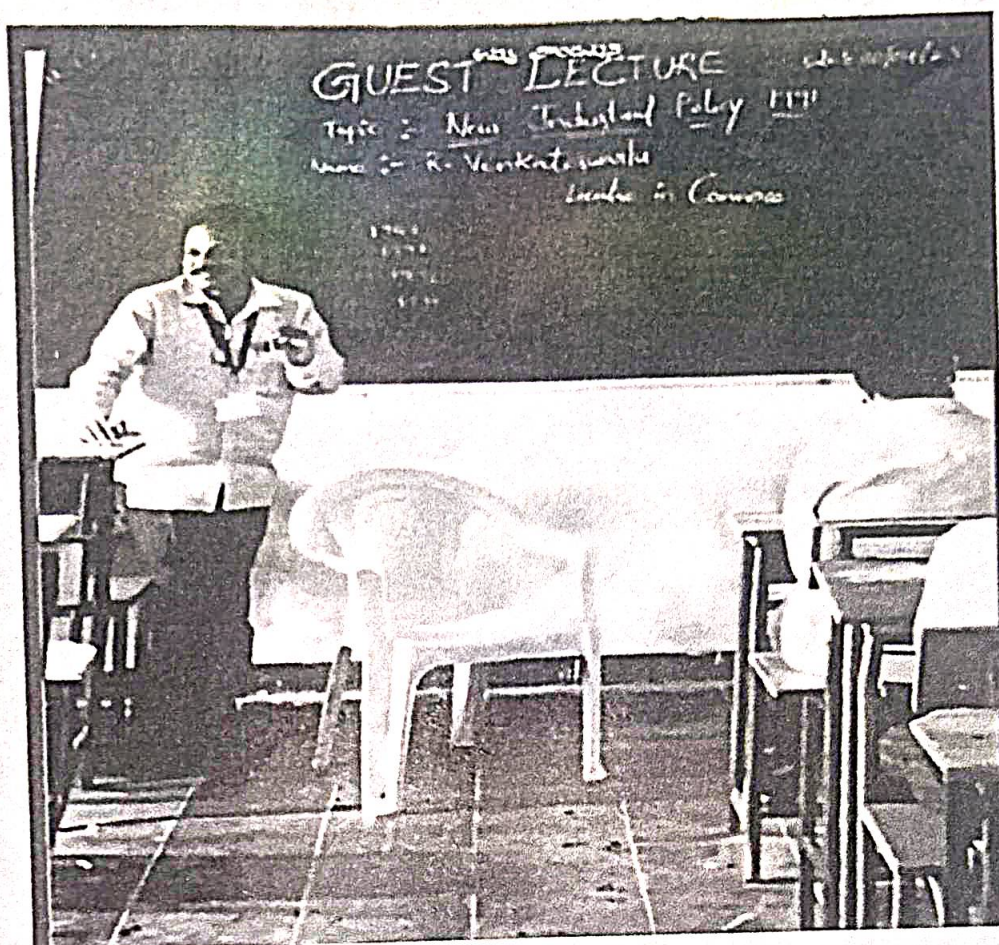


5. **Balanced Regional Development:** By incentivizing industries to set up in less developed areas, these policies can promote balanced regional development and reduce economic disparities.
6. **Export Promotion:** Industrial policies can help boost exports by supporting industries that produce goods for international markets, improving the trade balance.
7. **Environmental Sustainability:** Modern industrial policies often include measures to promote sustainable practices and reduce environmental impact.



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*T. V. S.*

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[www.gdemandapeta.ac.in](http://www.gdemandapeta.ac.in) [injkerjyee.mandapet@gmail.com](mailto:injkerjyee.mandapet@gmail.com)

## ATTENDANCE CERTIFICATE

This is to certify that Mr. R. Venkateshwarlu Lecturers in commerce, Govt. Degree College, Mandapeta has attended in our college on 24-03-2023 Guest lecture on "INDUSTRY POLICY" for 1st B.com students of this College on F.N. of 20-04-2023.



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Principal  
Govt. Degree College  
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[www.gdmandapeta.ac.in](http://www.gdmandapeta.ac.in) [injerjyee.mandapet@gmail.com](mailto:injerjyee.mandapet@gmail.com)

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Principal  
Govt. Degree College  
MANDAPETA - 533308

*[Signature]*  
Principal  
Govt. Degree College  
MANDAPETA - 533308.





**GOVERNMENT DEGREE COLLEGE, RAMACHANDRAPURAM**

DR. B. R. AMBEDKAR KONASEEMA DIST.,

(Affiliated to Adi Kavi Nannaya University, Rajamahendravaram)

Website: www.gdrcpin.ac.in, e-mail: jkerjee.ramachandrapuram@gmail.com

**RELIEVING CERTIFICATE**

This is to certify that Rongala Venkateswarlu,  
Lecturer in Commerce relieved of his normal duties on  
the AN Of 20.04.2023 to attend the Guest Lecture  
Govt. Degree College, Mandapeta  
at Govt. Degree College, Mandapeta  
from 20.04.2023 to     .202

M. Pradeep 20/4/24  
for Principal

PRINCIPAL  
Govt. Degree College  
RAMACHANDRAPURAM  
Dr. B. R. Ambedkar Konaseema Dist.

17/10/24  
Principal  
Govt. Degree College  
MANDAPETA - 533 308.



# Government Degree College, Mandapeta

## DEPARTMENT OF COMMERCE

### GUEST LECTURER TOPIC: INDUSTRY POLICY

Sl.No	Student Name	Branch	Student Signature
1	ANKAM DURGA BHAVANI	B.com (CA)	A. Durga Bhavani
2	ATIKELA BAPIRAJU	B.com (CA)	A. BAPIRAJU
3	BILLAKURTHI MARY	B.com (CA)	B. Mary
4	BORRA VINNY	B.com (CA)	B. Vinny
5	DRAKSHARAPU SAILAJA SRI	B.com (CA)	D. Sailaja Sri
6	JAMPA LALITHA VENKATA ARTHI	B.com (CA)	J. Lalitha Venkata Arthi
7	KOKKIRIMENTI SUDHEER KUMAR	B.com (CA)	K. Sudheer Kumar
8	KONDETI PINAKSHI	B.com (CA)	K. Pinakshi
9	KONE NAGA SAI SATYA PRIYA	B.com (CA)	K. Sai Satya Priya
10	KOSETTI JAGADISH	B.com (CA)	K. Jagadish
11	MADASU SAKETHI	B.com (CA)	M. Saketh
12	MANEPALLI JYOTHIRMAI	B.com (CA)	M. Jyothirmmai
13	MAVURI SAILAJA	B.com (CA)	M. Sailaja
14	NANDIKOLLA NAGA SAI LAKSHMI	B.com (CA)	N. Naga Sai Lakshmi
15	PENTA PATI ANIL KUMAR	B.com (CA)	P. Anil Kumar
16	PICHKA B V V SATYA SRI LAKSHMI DEVI	B.com (CA)	P. B.V.V.S. S. Lakshmi Devi
17	RAPARTHI VEERA BABU	B.com (CA)	R. Veera Babu
18	RUDRAKSHULA MOUNIKA	B.com (CA)	R. Mounika
19	SINGAM ARUNA JYOTHI	B.com (CA)	S. Aruna Jyothi
20	TADISETTI VIJYA KUMAR	B.com (CA)	T. Vijya Kumar
21	TAKI RAMYA	B.com (CA)	T. Ramya
22	TUMBURI SIVA DEEPIKA	B.com (CA)	T. Siva Deepika
23	VASAMSETTI CHIRU SANDEEP	B.com (CA)	V. Chiru Sandeep
24	VYTILA SAHITHI ANUJA	B.com (CA)	V. Sahithi Anuja

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**Report on Surendra Solvent Oils Pvt. Ltd.**

Title	Internship on "Enhancing Employee Performance through Incentive @ Surendra Solvent Oils Pvt. Ltd."
Duration	From 12 - 02 - 2024 To 25 - 05 - 2024
Place of Work	Surendra Solvent Oils Pvt. Ltd, Mandapeta.
Number of Persons	2

**Objectives:**

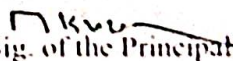
- Relationship management.
- Planning.
- Prioritization.
- Critical thinking.
- Written communication skills.

**Outcomes:**


- Students control their emotions, listen to other opinions, take an active interest and ask for feedback and actually be open to it.
- Look forward and take appropriate steps to deal with future uncertainties and changes.
- Prioritizing increases the success rates of strategic projects, increases the alignment and focus of senior management teams around strategic goals. .
- Critical thinking in the work place guarantees objective and efficient problem-solving, ultimately reducing costly errors and ensuring organizations resources are used wisely.
- The written communication skills that are gained by the students includes Email, Internet, Letters, Proposals, Telegrams, Faxes, Contracts, advertisements, Brochures.

  
Sig. of the IQAC coordinator

**IQAC Coordinator,  
GOVERNMENT DEGREE COLLEGE  
MANDAPETA.**

  
Sig. of the Principal

**Principal  
Govt. Degree College  
MANDAPETA - 533308**

  
**Principal  
Govt. Degree College  
MANDAPETA - 533308.**




**List of Students:**

S. No.	Name of the Student	Regd. Number	Class
1	A. Anand kumar	210637101001	III MPC EM
2	P.D. Devi shankar	210637101005	III MPC EM

  
Sig. of the IQAC coordinator

**IQAC Coordinator.**  
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MANDAPETA - 533308 Dr. B.R. Ambedkar Konaseema (dist), Andhra Pradesh



## Report on Keerthi Bizplus4u IT Services Pvt. Limited

Title	Internship on "Amazon Web Services cloud Computing"
Duration	From 05 - 02 - 2024 To 20 - 05 - 2024
Place of Work	Keerthi Bizplus4u IT Services Pvt. Limited, Hyderabad.
Number of Persons	51

### Objectives:

- Understanding cloud computing.
- VPC configuration & Management.
- Networking Fundamentals.
- Hands-on experience with AWS CLI.
- Team collaboration & Time management.

### Outcomes:

- Proficient in designing and configuring Virtual Private Clouds (VPCs) including creative subnets, routing tables, internet gateways and NAT gateways.
- Skilled in setting up security groups and network access control lists (ACLs) to manage inbound and outbound traffic effectively.
- Strong understanding of IP addressing, CIDR notation and sub-netting. Proficient in configuring VPN connections and VPC peering for secure network communications.
- Participated in projects that involved deploying applications on AWS, setting up security groups and configuring load balances.
- Worked collaboratively with cross-functional teams including developers, system administrators and security professionals to deliver integrated solutions.
- Experience in diagnosing and resolving connectivity issues within VPCs. Such misconfigured route tables or security group rules.

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**List of Students:**

S. No.	Name of the Student	Regd. Number	Class
1	Chundru Pushkarini	210637102009	III B.Sc (MPCs)
2	Geesala V Satyanarayana	210637102010	III B.Sc (MPCs)
3	Guttula Satya Poorna Devi	210637102011	III B.Sc (MPCs)
4	Indubukayala Venkanna Babu	210637102012	III B.Sc (MPCs)
5	Jalem Ajay	210637102013	III B.Sc (MPCs)
6	Kadali Adilakshmi	210637102015	III B.Sc (MPCs)
7	Kamujula Lakshmi Prasanna	210637102016	III B.Sc (MPCs)
8	Kondrapu V Venkata Mounika	210637102017	III B.Sc (MPCs)
9	Kota Pravalika	210637102018	III B.Sc (MPCs)
10	Kotturu Srinivasu	210637102019	III B.Sc (MPCs)
11	Madasu Hemanth	210637102020	III B.Sc (MPCs)
12	Mutyala Kumar Venkata Ramana	210637102022	III B.Sc (MPCs)
13	Palivela Sunny Raju	210637102023	III B.Sc (MPCs)
14	Pamarthi Devisri Prasad	210637102024	III B.Sc (MPCs)
15	Pamidipalli Vinitha	210637102025	III B.Sc (MPCs)
16	Prasangi Krishna Maha Lakshmi	210637102026	III B.Sc (MPCs)
17	Satyala Pujitha	210637102027	III B.Sc (MPCs)
18	T.V.S.N.S.Bhaskara Rao	210637102028	III B.Sc (MPCs)
19	Telu Jyothi Prakash	210637102029	III B.Sc (MPCs)
20	Uddandi Guna Veera V Deep	210637102030	III B.Sc (MPCs)
21	Vyrala Trisha	210637102031	III B.Sc (MPCs)
22	B.A. Kumar	210638200002	III B.Com (Comp. Sc.)
23	Ch. Sagar	210638200003	III B.Com (Comp. Sc.)
24	Ch. Rajesh	210638200004	III B.Com (Comp. Sc.)
25	N.V.P.S. Kiran	210638200005	III B.Com (Comp. Sc.)
26	D. Gowri parvati	210638200006	III B.Com (Comp. Sc.)
27	N. Hema Santhosh	210638200007	III B.Com (Comp. Sc.)
28	G. Himasri	210638200008	III B.Com (Comp. Sc.)
29	G.S.P. Varsha	210638200009	III B.Com (Comp. Sc.)
30	G.V. Sravanthi	210638200010	III B.Com (Comp. Sc.)
31	Ananda sairam	210638200011	III B.Com (Comp. Sc.)
32	K. Bhuvaneswari	210638200013	III B.Com (Comp. Sc.)
33	K.S.R. Lakshmi srujana	210638200014	III B.Com (Comp. Sc.)
34	K.Yedukondalu	210638200016	III B.Com (Comp. Sc.)
35	M.B.V.Prasad	210638200017	III B.Com (Comp. Sc.)
36	M. Dharma teja	210638200018	III B.Com (Comp. Sc.)
37	M. Sravani	210638200019	III B.Com (Comp. Sc.)
38	M. Jasmi	210638200020	III B.Com (Comp. Sc.)

  
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39	P.Uday kiran	210638200021	III B.Com (Comp. Sc.)
40	P. Karthik	210638200022	III B.Com (Comp. Sc.)
41	P. Himabindu	210638200023	III B.Com (Comp. Sc.)
42	P. Jyothi	210638200024	III B.Com (Comp. Sc.)
43	S. Satish	210638200025	III B.Com (Comp. Sc.)
44	T.D.Vikas	210638200026	III B.Com (Comp. Sc.)
45	T. Sunela	210638200027	III B.Com (Comp. Sc.)
46	V. S. Tulasi	210638200028	III B.Com (Comp. Sc.)
47	V. Sairam	210638200029	III B.Com (Comp. Sc.)
48	Bellamkonda Bala Krishna	210636201002	III B. A. (HEP)
49	Chinthalapudi Purna Chandrika	210636201006	III B. A. (HEP)
50	Duda Hari Krishna	210636201008	III B. A. (HEP)
51	Uppuluru Teja	210636201027	III B. A. (HEP)

A. [Signature]

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