



**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY::PUTTUR  
(AUTONOMOUS)**

(Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu)

(Accredited by NBA for Civil, EEE, Mech., ECE & CSE)

(Accredited by NAAC with 'A' Grade)

Puttur-517583, Chittoor District, A.P. (India)

**Department of Electronics and Communication Engineering**

**Name of the faculty: U Srinivasulu**

**Course name: Digital Communications (C315) Year of Study: 2020-21 (III / I Sem)**

**Course Outcomes:**

C315.1	Understand the Elements of Digital Communication System, Fundamental concepts of sampling theorem along with various base band and pass band transmission techniques.
C315.2	Describe and determine the performance of Matched Filter and methods to mitigate inter symbol interference.
C315.3	Analyze the generation and detection of band pass and pass band systems.
C315.4	Apply the concepts of signal space diagram, spectrum, and bandwidth efficiency in different transmission techniques.
C315.5	Analyze the performance of various schemes for the reliable transmission of digital representation of signals and information over the channel.

**Course name: Digital Communications (C315) Year of Study: 2020-21 (III / I Sem)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C315.1	3	2	1	-	-	-	-	-	-	-	-	-	-	3	-
C315.2	3	2	1	1	-	-	-	-	-	-	-	-	2	-	-
C315.3	2	2	2	-	-	-	-	-	-	-	-	-	2	-	-
C315.4	3	1	2	2	2	-	-	-	-	-	-	-	-	3	-
C315.5	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-
C315	2.6	1.8	1.6	1.5	2								2	2.67	

  
Signature of the faculty

  
Signature of the HOD  
**HEAD**  
Dept. of Electronics & Communication Engg.  
Siddharth Institute of Engg. & Tech.  
Narayanavanam Road, Puttur-517 583.



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**Department of Electronics and Communication Engineering**

Academic Year:2020-21

Subject: **Digital Communications(C315)**

Year/Sem: **III/I**

COs	Internal	External	Average
CO-1	73	53.4	63.2
CO-2	83	53.4	68.2
CO-3	65	53.4	59.2
CO-4	71	53.4	62.2
CO-5	72	53.4	62.2
CO-6	80	53.4	66.7
Average	74	53.4	63.7
Attainment Level	3	1	2


OVERALL ATTAINMENT LEVEL=40% OF


Attainment Level

INTERNAL+60%OF EXTERNAL

OVERALL ATTAINMENT	1.8
--------------------	-----

1	>50%
2	>60%
3	>70%

  
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## Department of Electronics and Communication Engineerin

Academic Year:2020-21

Subject: **Digital Communications (C315)**

Year/Sem: **III/I**

### CO-PO-PSO ATTAINMENT

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C315.1	73	73	73	73	73	-	-	-	-		73	-	-	-	-
C315.2	83	-	83	83	83	-	-	-	-	83		-	-	-	-
C315.3	65	65	65	65	65	-	-	-	-	-	65	-	-	-	-
C315.4	-	71	-	71	71	-	-	-	-	-		71	-	-	-
C315.5	72	72	72	-	72	-	-	-	-	-	72		-	-	-
C315.6	80	80	80	80	80	-	-	-	-	-	80	80	-	-	-
Avg	75	72	75	75	74	-	-	-	-	83	73	76	-	-	-
C315	3	3	3	3	3	-	-	-	-	3	3	3	-	-	-

Signature of the faculty

Signature of the HOD

**HEAD**

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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### REMEDIAL CLASSES

### CIRCULAR

Academic Year: 2020-2021

Date: 17/05/2021

Year & Sem: II YEAR II-SEM

Remedial classes for II-B.Tech ECE students arranged from 4:00PM to 5:00PM.

Hence the students are instructed to attend the classes without fail as per the given schedule.

#### LIST OF STUDENTS IDENTIFIED AS SLOWLEARNERS

S.NO	ROLL NO.	STUDENT NAME
1.	19F61A0424	CHAKRI.V
2.	19F61A0459	HEMALATHA.B
3.	19F61A0446	DURGAPRASAD.R
4.	19F61A0451	GUNADEEP.D
5.	19F61A0484	KOTESWARARAO.M
6.	19F61A0486	KRISHNA KUMAR.R
7.	19F61A04A7	MANOJ.H
8.	19F61A04C5	NITHIN.B
9.	19F61A04H3	SHAIK SAMEERUDDIN
10.	19F61A04I2	SIVA SANKAR.J
11.	19F61A04J0	SRINIVASULU.G
12.	19F61A04M7	VENKATA SOMASEKHAR.S

  
HOD



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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**REMEDIAL CLASSES**

**CIRCULAR**

**Academic Year: 2020-2021**

**Date: 17/05/2021**

Remedial classes for II B.Tech ECE students are arranged from 04:00PM to 05:00 PM on the following subjects. Hence the students are instructed to attend the classes without fail as per the given schedule.

NAME OF THE SUBJECT	NAME OF THE FACULTY	DATE	Signature of staff
Electronic Circuit Analysis	VR.Chandini	19/05/2021	
		20/05/2021	
Analog Communications	Dr.R.PremKumar	21/05/2021	
		22/05/2021	
Linear & Digital IC Applications	J.Jhansi	24/05/2021	
		25/05/2021	
Electromagnetic Theory and Transmission	K.D.Mohan Sundaram	26/05/2021	
		27/05/2021	

**HOD**

**COPY TO NOTICE BOARD  
COPY TO CLASS TEACHER  
COPY TO II YEAR CLASS ROOMS**



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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### ELECTROMAGNETIC THEORY AND TRANSMISSION LINES

#### REMEDIAL CLASSES ATTENDANCE SHEET

Academic Year: 2020-2021

Date: 26/5/2021 to 27/5/2021

S.NO	ROLL NO.	STUDENT NAME	DAY1 STUDENT	DAY2 STUDENT
1.	19F61A0424	CHAKRI.V	✓	✓
2.	19F61A0446	DURGAPRASAD.R	✓	✓
3.	19F61A0451	GUNADEEP.D	✓	✓
4.	19F61A0484	KOTESWARARAO.M	✓	✓
5.	19F61A04A7	MANOJ.H	✓	✓
6.	19F61A04C5	NITHIN.B	✓	✓
7.	19F61A04H3	SHAIK SAMEERUDDIN	✓	✓
8.	19F61A04I2	SIVA SANKAR.J	✓	✓
9.	19F61A04J0	SRINIVASULU.G	✓	✓
10.	19F61A04M7	VENKATA SOMASEKHAR.S	✓	✓

#### TOPICS COVERED:

##### DAY-1

1) Faraday's Law & Displacement Current

2) Wave Propagation

##### DAY-2

1) Pointing theorem

2) Transmission Line equation

  
Signature of Faculty





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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ELECTROMAGNETIC THEORY AND TRANSMISSION LINES

TUTORIAL PROBLEMS FOR SLOW LEARNERS

1. In free space,  $E = 20 \cos(\omega t - 50x) \hat{a}_y$  V/m. Calculate  $J_d$ ,  $H$ .

Sol

Given  $\vec{E} = 20 \cos(\omega t - 50x) \hat{a}_y$

(a) w.k.T  $\vec{J}_d = \frac{\partial \vec{D}}{\partial t} = \frac{\partial}{\partial t} (\epsilon_0 \vec{E})$  [ $\because \vec{D} = \epsilon_0 \vec{E}$ ]

$$= \epsilon_0 \frac{\partial}{\partial t} [20 \cos(\omega t - 50x) \hat{a}_y]$$
$$= 20 \cdot \epsilon_0 \cdot -\sin(\omega t - 50x) \cdot \omega \cdot \hat{a}_y$$
$$\vec{J}_d = -20 \omega \epsilon_0 \sin(\omega t - 50x) \hat{a}_y \text{ A/m}^2$$

(b) w.k.T  $\nabla \times \vec{H} = \vec{J}_d$

$$\nabla \times \vec{H} = \begin{vmatrix} \hat{a}_x & \hat{a}_y & \hat{a}_z \\ \frac{\partial}{\partial x} & \frac{\partial}{\partial y} & \frac{\partial}{\partial z} \\ H_x & H_y & H_z \end{vmatrix}$$
$$= \left( \frac{\partial H_z}{\partial y} - \frac{\partial H_y}{\partial z} \right) \hat{a}_x - \left( \frac{\partial H_z}{\partial x} - \frac{\partial H_x}{\partial z} \right) \hat{a}_y + \left( \frac{\partial H_y}{\partial x} - \frac{\partial H_x}{\partial y} \right) \hat{a}_z$$

along  $\hat{a}_y$

$$-\frac{\partial H_z}{\partial x} \hat{a}_y = -20 \omega \epsilon_0 \sin(\omega t - 50x) \hat{a}_y$$
$$\frac{\partial H_z}{\partial x} = 20 \omega \epsilon_0 \sin(\omega t - 50x)$$
$$H_z = \int 20 \omega \epsilon_0 \sin(\omega t - 50x) dx \cdot \hat{a}_z$$
$$= -\frac{20 \omega \epsilon_0}{-50} \cos(\omega t - 50x) \hat{a}_z$$
$$\therefore \vec{H}_z = 0.4 \omega \epsilon_0 \cos(\omega t - 50x) \hat{a}_z \text{ A/m}$$



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2. In free space ( $z \leq 0$ ), a plane wave with  $\mathbf{H} = 10 \cos(10^8 t - \beta z) \hat{a}_x$  mA/m is incident normally on a lossless medium ( $\epsilon = 2\epsilon_0, \mu = 8\mu_0$ ) in region  $z > 0$ . Determine the reflected wave and the transmitted wave.

For free space

$$\beta_1 = \frac{\omega}{c} = \frac{10^8}{3 \times 10^8} = \frac{1}{3}$$

$$\eta_1 = \eta_0 = 120\pi$$

For lossless  $\beta_2 = \omega \sqrt{\mu \epsilon} = \omega \sqrt{\mu_0 \epsilon_0} \sqrt{\mu_r \epsilon_r} = \frac{\omega}{c} \sqrt{16} = \frac{\omega}{c} \cdot 4$

$$\beta_2 = \beta_1 \cdot 4 = \frac{4}{3}$$

$$\eta_2 = \sqrt{\frac{\mu}{\epsilon}} = \sqrt{\frac{\mu_0}{\epsilon_0}} \sqrt{\frac{\mu_r}{\epsilon_r}} = 2\eta_0$$

Given

$$\mathbf{H}_i = 10 \cos(10^8 t - \beta_1 z) \hat{a}_x \text{ mA/m,}$$

We can expect  $\mathbf{E}_i = E_{i0} \cos(10^8 t - \beta_1 z) \hat{a}_y$

$$\hat{a}_y = \hat{a}_x \times \hat{a}_z = \hat{a}_x \times \hat{a}_z = -\hat{a}_y$$

$$E_{i0} = \eta_0 H_{i0} = 10\eta_0$$

$$\mathbf{E}_i = -10\eta_0 \cos(10^8 t - \beta_1 z) \hat{a}_y \text{ mV/m}$$

$$\frac{E_{r0}}{E_{i0}} = \Gamma = \frac{\eta_2 - \eta_1}{\eta_2 + \eta_1} = \frac{2\eta_0 - \eta_0}{2\eta_0 + \eta_0} = \frac{1}{3}$$

$$E_{r0} = \frac{1}{3} E_{i0}$$

$$\mathbf{E}_r = \frac{-10\eta_0}{3} \cos(10^8 t + \frac{1}{3} z) \hat{a}_y$$



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$$H_x = -\frac{10}{3} \cos(10^8 t + \frac{1}{3} z) \bar{a}_x$$

$$\eta_0 = \frac{E_{x0}}{H_{x0}} = \frac{-10 \cdot \eta_0}{H_{x0}}$$

$$\left( \because H_{x0} = \frac{-10 \cdot \eta_0}{\eta_0} \right)$$

$$\text{If } \frac{E_b}{E_{b0}} = \rho = 1 + \Gamma = 4/3 \quad (\text{or}) \quad E_b = \frac{4}{3} E_{b0}$$

$$E_t = E_b \cos(10^8 t - \beta_2 z) \bar{a}_t$$

where  $a_{Et} = a_{Et} = -\bar{a}_y$

$$E_t = -\frac{40}{3} \eta_0 \cos(10^8 t - \frac{4}{3} z) \bar{a}_y \text{ mV/m}$$

$$\text{If } H_t = -\frac{20}{3} \cos(10^8 t - \frac{4}{3} z) \bar{a}_x \text{ mA/m}$$

$$\left( \because \eta_2 = \frac{E_{t0}}{H_{t0}} \right)$$

$$\eta_2 = \frac{-40 \eta_0}{H_{t0}}$$

$$H_{t0} = \frac{-40 \eta_0}{\eta_2}$$

3. A distortion less line has  $Z_0=60 \Omega$  Attenuation constant = 20 mNp/m and  $u=0.6c$  ( $c$  is velocity of light)  
Find the primary parameters of the transmission line(R L C G and  $\lambda$ ) at 100MHz.

A distortionless line has  $RC = GL$  or  $G = \frac{RC}{L}$ ,  $u = \frac{\omega}{\beta} = \frac{1}{\sqrt{LC}}$

$$Z_0 = \sqrt{\frac{L}{C}}, \quad \alpha = \sqrt{RG} = R \sqrt{\frac{C}{L}} = \frac{R}{Z_0}$$

$$\rightarrow R = \alpha Z_0 = (20 \times 10^{-3})(60) = 1.2 \Omega/\text{m}$$

$$\text{Since } \alpha = \sqrt{RG} \rightarrow G = \frac{\alpha^2}{R} = \frac{400 \times 10^{-6}}{1.2} = 333 \mu\text{S}/\text{m}$$

Dividing  $Z_0 = \sqrt{\frac{L}{C}}$  by  $u = \frac{\omega}{\beta} = \frac{1}{\sqrt{LC}}$  gives

$$L = \frac{Z_0}{u} = \frac{60}{0.6(3 \times 10^8)} = 333 \text{ nH}/\text{m}$$



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Multiplying  $Z_0 = \sqrt{\frac{L}{C}}$  by  $u = \frac{\omega}{\beta} = \frac{1}{\sqrt{LC}}$  gives

$$uZ_0 = \frac{1}{C} \rightarrow C = \frac{1}{uZ_0} = \frac{1}{0.6(3 \times 10^8)60} = 92.59 \text{ pF/m}$$

$$\lambda = \frac{u}{f} = \frac{0.6(3 \times 10^8)}{10^8} = 1.8 \text{ m}$$

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## DEPARTMENT OF MBA

### REMEDIAL CLASSES

### CIRCULAR

Academic Year: 2019-2020

Date: 06/02/2020

Year & Sem: II YEAR II-SEM

Remedial classes for II MBA students (who scored below 20 marks in midterm examination) arranged from 4:00PM to 5:00PM. Hence the students are instructed to attend the classes without fail as per the given schedule.

#### LIST OF STUDENTS IDENTIFIED AS SLOWLEARNERS

S.No.	Roll No.	Name of the Student
1	18F61E0019	GAYATHRI CHOWDARY.T
2	18F61E0038	KEERTHI.C



**HOD**

**HEAD**

Department Of Management Studies  
Siddharth Institute Of Engg. & Tech.  
Narayana Varam Road, PUTTUR-517583

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## DEPARTMENT OF MBA

### II MBA ISEM

### GLOBAL HUMAN RESOURCE MANAGEMENT

### REMEDIAL CLASSES ATTENDANCE SHEET

**Academic Year: 2019-2020**

**Date: 06/02/2020 to 07/02/2020**

S.NO	ROLL NO.	STUDENT NAME	DAY1 STUDENT	DAY2 STUDENT
1.	18F61E0019	GAYATHRI CHOWDARY.T	Gayathri Chowdary	Gayathri Chowdary
2.	18F61E0038	KEERTHI.C	Keerthi	Keerthi

#### TOPICS COVERED:

##### DAY-1

- 1) Global issues and challenges-Differences between Domestic HRM and GHRM.
- 2) Cultural Research Methodologies
- 3) Recruitment and Selection for International Assignment-
- 4) Trade Unions- Collective Negotiations- Disputes/Conflicts-Quality Circles

##### DAY-2

- 1) Performance management and HR process
- 2) Repatriation-Designing Compensation Programme- Approaches to International Compensation-Differentiating PCN'S and TCN'S.

  
Signature of Faculty



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**DEPARTMENT OF MBA**

**REMEDIAL CLASSES**

**II MBA ISEM**

**GLOBAL HUMAN RESOURCE MANAGEMENT**

## **1. Cross Cultural Differences – Cross – Cultural Research Methodologies – Hofstede's Hermes Study- Managerial Implications- Cultural Issues.**

**Sol: Cross cultural issues in global hrm**

A set of ideas, concepts or notions, especially values are shared by the members of a **culture**.

This set of ideas is transferred from one generation to another through symbols.

**Culture** exists from the past actions of members of a group. ...

**Culture** moulds behavior and changes one's perception of the world.

## **2. Repatriation-Designing, -**

**Sol: Managerial competence:** technical skills, leadership skills, knowledge specific to the company operations.

**Training:** The candidate either has or is willing to be trained on the language and culture of the host country.

**Adaptability:** The ability to deal with new, uncomfortable, or unfamiliar situations and the ability to adjust to the culture in which the candidate will be assigned.

## **3. Programmes and Agencies - Evaluation of Global HRM Practices**

**Sol:** As the organisations continue to grow globally at a rapid pace, nations are increasingly permeable to the international exchange of knowledge, capital, goods and services, giving rise to more complexities and uncertainties (Brewster, Houldsworth, Sparrow, & Vernon, 2011). Intensified rate of globalisation is evident from the changing trends in foreign direct investment which is increasingly indicating a shift toward developing economies like China and India (Dicken, 2007). Growing internationalisation is breaking down organisational and geographical boundaries with business processes and structures undergoing complete transformation (Harris, Brewster, & Sparrow, 2003).

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### REMEDIAL CLASSES

### CIRCULAR

**Academic Year:** 2020-2021  
**Year & Sem:** II YEAR I-SEM

**Date:** 14/12/2020

Remedial classes for II-B.Tech CSE students (who scored below 20 marks in midterm examination) arranged from 4:00PM to 5:00PM. Hence the students are instructed to attend the classes without fail as per the given schedule.

### LIST OF STUDENTS IDENTIFIED AS SLOW LEARNERS

S.No.	Roll No.	Name of the Student
1	19F61A0531	DILEEP.P M
2	19F61A0536	GANESH.M
3	19F61A0557	JAYAKIRAN.K
4	19F61A0563	KARTHIK.K
5	19F61A0568	KISHORE.K
6	19F61A0569	KONDAIAH.K
7	19F61A0577	MADHUSUDHAN.P
8	19F61A0581	MOHAMMED ZAAMIN K
9	19F61A0582	MOHAN SAI.J N
10	19F61A0589	NANDEESWARUDU.P
11	19F61A05A8	PUNEETH VARMA.P
12	19F61A05B4	REVANTH.V



# SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)



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13	19F61A05B5	SAI DILEEP KUMAR.P
14	19F61A05B6	SAI KRISHNA REDDY.O
15	19F61A05B8	SAI PRAKASH.K
16	19F61A05C1	SAIKUMAR.V
17	19F61A05C3	SAMJEESH.D
18	19F61A05C7	SHAIK AHAMMAD
19	19F61A05C9	SHAIK MAHAMMED SALAUDDIN
20	19F61A05D0	SHAIK MOHAMMED FAKRUDDIN
21	19F61A05H0	YASWANTH RAGHAVA VIGNESH.P T
22	20F65A0506	YUGANDHAR.K
23	16F61A05F6	N THULASI KUMAR

**HOD**

**HEAD OF THE DEPARTMENT**  
Department of Computer Science & Engg.  
Siddharth Institute of Engg. & Technology  
PUTTUR-517 583.

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### REMEDIAL CLASSES

#### CIRCULAR


Academic Year:2020-2021

Date: 14/12/2020

Remedial classes for II B.Tech CSE students are arranged from 04:00PM to 05:00 PM on the following subjects. Hence the students are instructed to attend the classes without fail as per the given schedule.

NAME OF THE SUBJECT	NAME OF THE FACULTY	DATE	Signature of staff
C AND DATA STRUCTURES	S.MANASA	14/12/2020&15/12/2020	S. Manasa
COMPUTER ORGANIZATION & ARCHITECTURE	NAGARAJU PACHARLA	16/12/2020&17/12/2020	N. Pacharla
DATABASE MANAGEMENT SYSTEMS	B.ASHOK	18/12/2020&19/12/2020	B. Ashok

COPY TO NOTICE BOARD  
COPY TO CLASS TEACHER  
COPY TO II YEAR CLASS ROOMS

  
**HOD**  
HEAD OF THE DEPARTMENT  
Department of Computer Science & Engg.  
Siddharth Institute of Engg. & Technolo.  
PUTTUR-517 583.

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**II B.TECH I SEMESTER**  
**C AND DATA STRUCTURES**  
**REMEDIAL CLASSES ATTENDANCE SHEET**

**Academic Year:** 2020-2021

**Date:** 14/12/2020&15/12/2020

S.NO	ROLL NO.	STUDENT NAME	DAY1 STUDENT	DAY2 STUDENT
1	19F61A0536	M.GANESH	P	P
2	19F61A0569	K.KONDAIAH	P	P
3	19F61A0581	MOHAMMED ZAAMIN K	P	P
4	19F61A0582	JN MOHANSAI	P	P
5	19F61A05B4	V.REVANTH	A	P
6	19F61A05B6	O.SAI KRISHNA REDDY	P	P
7	19F61A05C1	VUNGARALA SAIKUMAR	P	A
8	19F61A05C3	DASARI SAMJEESH	P	P
9	19F61A05C7	SHAIK AHAMMAD	P	P
10	20F65A0506	K YUGANDHAR	P	P
11	16F61A05F6	TULASI KUMAR	P	P

**TOPICS COVERED:**

**DAY-1**

- 1) Functions
- 2) Library Functions
- 3) Communications among Functions

**DAY-2**

- 1) Strings
- 2) String Library Functions
- 3) Pointers and Strings

*S. Manasa*  
Signature of Faculty

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING****II B.TECH I SEMESTER****COMPUTER ORGANIZATION AND ARCHITECTURE****REMEDIAL CLASSES ATTENDANCE SHEET**

Academic Year: 2020-2021

Date: 16/12/2020&amp;17/12/2020

S.NO	ROLL NO.	STUDENT NAME	DAY1 STUDENT	DAY2 STUDENT
1	19F61A0536	M.GANESH	P	P
2	19F61A0557	K.JAYAKIRAN	P	P
3	19F61A0563	KARTHIK.K	P	P
4	19F61A0569	K.KONDAIAH	A	P
5	19F61A0581	MOHAMMED ZAAMIN K	P	P
6	19F61A0582	JN MOHANSAI	P	P
7	19F61A0589	P NANDEESWARUDU	P	P
8	19F61A05B4	V.REVANTH	P	P
9	19F61A05B5	POOLA SAI DILEEP KUMAR	A	P
10	19F61A05B6	O.SAI KRISHNA REDDY	P	P
11	19F61A05C1	VUNGARALA SAIKUMAR	P	P
12	19F61A05C3	DASARI SAMJEESH	P	P
13	19F61A05C7	SHAIK AHAMMAD	P	A
14	19F61A05D0	SHAIK MOHAMMED FAKRUDDIN	P	P
15	20F65A0506	K YUGANDHAR	P	P



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## REMEDIAL CLASSES

### TUTORIAL PROBLEMS FOR SLOW LEARNERS

#### Name of the Subject: C and Data Structures

##### 1. Explain about various categories of functions with examples

Sol: There can be 4 different types of user-defined functions, they are:

1. Function with no arguments and no return value
2. Function with no arguments and a return value
3. Function with arguments and no return value
4. Function with arguments and a return value

Below, we will discuss about all these types, along with program examples.

---

Function with no arguments and no return value

Such functions can either be used to display information or they are completely dependent on user inputs.

Below is an example of a function, which takes 2 numbers as input from user, and display which is the greater number.

```
#include<stdio.h>
```

```
void greatNum();    // function declaration
```

```
int main()
```

```
{  
    greatNum();    // function call  
    return 0;  
}
```

```
void greatNum()    // function definition
```

```
{  
    int i, j;
```

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```
printf("Enter 2 numbers that you want to compare...");
```

```
scanf("%d%d", &i, &j);
```

```
if(i > j) {
```

```
    printf("The greater number is: %d", i);
```

```
}
```

```
else {
```

```
    printf("The greater number is: %d", j);
```

```
}
```

```
}
```

---

Function with no arguments and a return value

We have modified the above example to make the function `greatNum()` return the number which is greater amongst the 2 input numbers.

```
#include<stdio.h>
```

```
int greatNum();    // function declaration
```

```
int main()
```

```
{
```

```
    int result;
```

```
    result = greatNum();    // function call
```

```
    printf("The greater number is: %d", result);
```

```
    return 0;
```

```
}
```

```
int greatNum()    // function definition
```

```
{
```

```
    int i, j, greaterNum;
```

```
    printf("Enter 2 numbers that you want to compare...");
```

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```
scanf("%d%d", &i, &j);
if(i > j) {
    greaterNum = i;
}
else {
    greaterNum = j;
}
// returning the result
return greaterNum;
}
```

---

Function with arguments and no return value

We are using the same function as example again and again, to demonstrate that to solve a problem there can be many different ways.

This time, we have modified the above example to make the function greatNum() take two int values as arguments, but it will not be returning anything.

```
#include<stdio.h>
```

```
void greatNum(int a, int b);    // function declaration
```

```
int main()
```

```
{
    int i, j;
    printf("Enter 2 numbers that you want to compare...");
    scanf("%d%d", &i, &j);
    greatNum(i, j);    // function call
    return 0;
}
```



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## DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

### REMEDIAL CLASSES

### CIRCULAR

Academic Year: 2020-2021  
Year & Sem: II YEAR II-SEM

Date: 09/01/2021

Remedial classes for II-B.Tech CSIT students (who scored below 20 marks in midterm examination) arranged from 4:00PM to 5:00PM. Hence the students are instructed to attend the classes without fail as per the given schedule.

### LIST OF STUDENTS IDENTIFIED AS SLOWLEARNERS

S.No.	Roll No.	Name of the Student
1.	19F61A0602	AKHILA.K
2.	19F61A0604	DHANUSH KUMAR/S
3.	19F61A0605	FIZUNNISHA.K
4.	19F61A0607	GOPI VIVEK.B
5.	19F61A0608	GOVARDHAN.K
6.	19F61A0609	HIMA BINDU
7.	19F61A0612	LAKSHMI NARAYANA.P
8.	19F61A0620	MOUNIKA.K
9.	19F61A0622	NAVEEN REDDY.D
10.	19F61A0624	NISHITHA.K

  
HOD

HEAD

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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY  
Siddharth Nagar, Narayanaavanam Road,  
PUTTUR, Chittoor Dt. (A.P.)-517503.





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## DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

### REMEDIAL CLASSES

### CIRCULAR

Academic Year:2020-2021

Date:09/01/2021

Remedial classes for II B.Tech CSIT students are arranged from 04:00PM to 05:00 PM on the following subjects. Hence the students are instructed to attend the classes without fail as per the given schedule.

NAME OF THE SUBJECT	NAME OF THE FACULTY	DATE	Signature of staff
MANAGEMENT SCIENCE (19HS0813)	M.JAYA LAKSHMI	—	
DATABASE MANAGEMENT SYSTEM(19CS0506)	D.VISWASAHITHYA	22-01-21 & 23-01-21	
COMPUTER ORGANIZATION AND ARCHITECTURE(19CS0504)	G.VENKATESH	18-01-21	
INDIAN CONSTITUTION (19HS0816)	D.HASSAN		
C AND DATA STRUCTURES(10CS0505)	M.BHANU PRAKASH	09-01-21	
MICROPROCESSOR AND MICRO CONTROLLER	D.MUNEDRA	—	

HOD

Dept. of Computer Science & Information Technology  
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## DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

### II B.TECH II SEMESTER

DATABASE MANAGEMENT SYSTEM(19CS0506)

### REMEDIAL CLASSES ATTENDANCE SHEET

Academic Year: 2020-2021

Date: 22/01/2021 & 23/01/2021

S.NO	ROLL NO.	STUDENT NAME	DAY1 STUDENT	DAY2 STUDENT
1.	19F61A0602	AKHILA.K	P	P
2.	19F61A0604	DHANUSH KUMAR/S	P	P
3.	19F61A0605	FIZUNNISHA.K	P	P
4.	19F61A0607	GOPI VIVEK.B	P	A
5.	19F61A0608	GOVARDHAN.K	P	P

#### TOPICS COVERED:

##### DAY-1

- 1) Introduction to DBMS
- 2) Data Models
- 3) Database languages
- 4) Database Architecture

##### DAY-2

- Aggregate function  
Set Operations  
Normalization & Keys  
*(Signature)*  
Signature of Faculty



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## DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

### REMEDIAL CLASSES

#### TUTORIAL PROBLEMS FOR SLOW LEARNERS

##### 1. How many different outcomes are possible from tossing 12 dice?

**Sol:** Assume the die has 6 sides

When it's tossed, the outcome is either 1, 2, 3, 4, 5 or 6, meaning it has 6 possible outcomes when tossed once.

When tossed the second time, it gives 6 possible outcomes alongside any of the first [Probability 1st and Probability 2nd]

[1&1 or 1&2 or 1&3 or 1&4 or 1&5 or 1&6 or 2&1 or 2&2 ... counting down to 6&5 or 6&6] which gives 36 possible outcomes after 2 tosses.

It can be deduced from the tosses above that

A toss gives  $6^1 = 6$  outcomes

2 tosses give  $6^2 = 36$  outcomes

So 12 tosses will give  $6^{12}$  possible outcomes. (2176782336 outcomes).

[Number of sides]<sup>[Number of tosses]</sup> = Number of possible outcomes.

##### 2. What are the advantages of adjacency matrix representation?

**Sol:** The advantage of the adjacency matrix is that it is simple, and for small graphs it is easy to see which nodes are connected to other nodes. However, notice that most of the cells in the matrix are empty.

##### 3. Explain About Setup Time And Hold Time, What Will Happen If There Is Setup Time And Hold Time Violation, How To Overcome This?

**Sol:** Set up time is the amount of time before the clock edge that the input signal needs to be stable to guarantee it is accepted properly on the clock edge.

Hold time is the amount of time after the clock edge that same input signal has to be held before changing it to make sure it is sensed properly at the clock edge.

Whenever there are setup and hold time violations in any flipflop, it enters a state where its output is unpredictable: this state is known as metastable state (quasi stable state); at the end of metastable state, the flipflop settles down to either '1' or '0'. This whole process is known as metastability.