O.P.Code: 18CS0532	R18	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech. III Year II Semester Supplementary Examinations May-2025

LINUX PROGRAMMING

(Computer Science & Engineering)

Time: 3 Hours **Max. Marks: 60**

PART-A

(Answer all the Questions **5 x 2 = 10** Marks)

1	a	Write syntax for changing ownership and group name on a given file/s.	CO1	L2	2M
	b	What is **noglob** option? Write the syntax to ON or OFF the option.	CO2	L1	2M
	c	How do an undo command work in vi?	CO3	L1	2M
	d	What would be the effect of the command **grep "UNIX|Unix|unix" file1**	CO4	L1	2M
	e	Write about eval command.	CO5	L2	2M

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	Illustrate the user and group in Unix. Explain the related commands for changing ownership and group.	CO1	L3	5M
	b	Discuss about listing directories and files.	CO1	L2	5M
		OR			
3	a	Explain the security levels provided in Unix environment. How to change permissions of a file?	CO1	L2	5M
	b	Brief umask command.	CO1	L2	5M

UNIT-II

4	a	What is JOB? Explain in detail foreground and background jobs. Give example.	CO2	L2	5M
	b	Explain sort command with its options.	CO2	L2	5M
		OR			
5	a	Explain (i) Aliases (ii) Unix session	CO2	L2	6M
	b	Describe how to resume foreground and kill background job by using various kill options.	CO2	L3	4M

UNIT-III

6	a	How text manipulation is done in vi? Explain.	CO3	L3	5M
	b	Explain about comparing files with examples.	CO3	L2	5M
		OR			
7		Explain talk and write command.	CO3	L2	10M

UNIT-IV

8	a	What does a startup script consist of?	CO4	L2	4M
	b	Write the basic script concepts orientes with Korn shell.	CO4	L3	6M
		OR			
9		Describe the overview of Sed and awk.	CO4	L3	10M

UNIT-V

10		Explain (i) special parameters (ii) (ii) command history	CO5	L2	10M
		OR			
11		Discuss in detail about the variables associated with C shell.	CO5	L3	10M

***** END *****

O.P.Code: 18CS0511 | R18 | H.T.No.

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

B.Tech II Year II Semester Supplementary Examinations May-2025

OBJECT ORIENTED PROGRAMMING
(Common to CSIT & CSE)

Time: 3 Hours **Max. Marks: 60**

PART-A
(Answer all the Questions **5 x 2 = 10** Marks)

1	a	Explain how java provides security and portability.	CO1	L2	2M
	b	Explain about constructors.	CO2	L2	2M
	c	What do you mean by uncaught Exceptions?	CO3	L1	2M
	d	Write the general form of generic class.	CO4	L2	2M
	e	Explain about Layout Managers.	CO5	L2	2M

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	What is Conditional Operator? Give any suitable example.	CO1	L1	5M
	b	What are Java Selection Statements? Give an example to each one.	CO1	L1	5M
		OR			
3	a	What is a Data Type? How to declare variable in Java? Write the Rules.	CO1	L2	5M
	b	What is Byte Code? What are the different states of Java Program execution?	CO1	L2	5M

UNIT-II

4	a	What is a Class, Method and Object? Write the syntax to define these in java.	CO2	L3	5M
	b	Write a java program to find the Area of Circle using Constructor.	CO2	L3	5M
		OR			
5	a	What are the varargs in java? Write the syntax and develop any program.	CO2	L3	5M
	b	What is Inheritance? Explain types of inheritances.	CO2	L2	5M

UNIT-III

6	a	Explain about Nested try statements with an example.	CO3	L2	5M
	b	What are Java's Built-in Exception? Write the importance of finally block.	CO3	L2	5M
		OR			
7	a	How to set the priority to threads? what are the different ranges?	CO3	L2	6M
	b	Write a java program to create two threads and execute simultaneously.	CO3	L3	4M

UNIT-IV

8	a	Write a java program to implement Mouse Events.	CO4	L3	6M
	b	Discuss about Source, Event and Listeners in event handling.	CO4	L3	4M
		OR			
9	a	Write a java program to implement Key events.	CO4	L3	5M
	b	Explain about the AWT Menu design.	CO4	L2	5M

UNIT-V

10	a	What is JDBC? Explain architecture of JDBC.	CO5	L2	5M
	b	Difference between JDBC and ODBC.	CO5	L3	5M
		OR			
11	a	Write a java JDBC program to display student details.	CO5	L3	5M
	b	Explain the steps to connect with the database using JDBC.	CO5	L2	5M

***** END *****

O.P.Code:18CS0510	R18	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech II Year II Semester Supplementary Examinations May-2025
OPERATING SYSTEMS
(Computer Science and Engineering)

Time: 3 Hours **Max. Marks: 60**

PART-A
(Answer all the Questions **5 x 2 = 10** Marks)

1	**a**	List the services provided by an Operating System.	**CO1**	**L1**	**2M**
	b	Define Thread.	**CO2**	**L1**	**2M**
	c	Define semaphores.	**CO3**	**L1**	**2M**
	d	Mention few Page Replacement Strategies.	**CO3**	**L2**	**2M**
	e	What are the File Attributes?	**CO5**	**L1**	**2M**

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	**a**	Explain Operating System Structures.	**CO1**	**L2**	**5M**
	b	Explain System Programs.	**CO1**	**L2**	**5M**

OR

3		Explain briefly different types of System calls.	**CO1**	**L5**	**10M**

UNIT-II

4		Explain CPU Scheduling Algorithms with examples.	**CO2**	**L5**	**10M**

OR

5		Evaluate Round CPU Scheduling algorithm for given Problem Time slice =3 ms.	**CO2**	**L5**	**10M**

Process	P1	P2	P3	P4
Process Time	10	5	18	6
Arrival Time	5	3	0	4

UNIT-III

6		Define process synchronization and explain Peterson solution algorithms.	**CO3**	**L2**	**10M**

OR

7		Write about Deadlock Prevention Methods.	**CO3**	**L5**	**10M**

UNIT-IV

8		Explain the following disk scheduling algorithm with proper diagram i) FCFS ii) SSTF iii) SCAN iv) LOOK v) C-SCAN.	**CO4**	**L5**	**10M**

OR

9	**a**	Explain the following: i) Paging ii) Segmentation	**CO4**	**L2**	**5M**
	b	What is contiguous memory allocation? Explain it	**CO4**	**L2**	**5M**

UNIT-V

10	**a**	Discuss about File type.	**CO5**	**L6**	**5M**
	b	Explain about File operation.	**CO5**	**L5**	**5M**

OR

11		Explain file allocation methods in detail.	**CO5**	**L2**	**10M**

***** END *****

O.P.Code: 18CS0501	R18	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Supplementary Examinations May-2025
Programming for Problem Solving
(Common to ECE, CSE & CSIT)

Time: 3 Hours **Max. Marks: 60**

PART-A
(Answer all the Questions **5 x 2 = 10** Marks)

1	a	Differentiate between an algorithm and a flowchart.	CO1	L2	2M
	b	Write a program to print the multiplication table from 1 to n.	CO2	L3	2M
	c	How to declare and initialize a 1-D, 2-D array? Illustrate with an example.	CO3	L3	2M
	d	Define a pointer array.	CO4	L1	2M
	e	How to represent self-referential structures?	CO5	L2	2M

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	Sketch the structure of a general C program and explain the same.	CO1	L2	5M
	b	Write a program to perform the swapping of two numbers without using a temporary variable.	CO1	L3	5M
		OR			
3	a	Write an algorithm and a flowchart to generate the Fibonacci series of numbers up to 'n'.	CO1	L2	5M
	b	Draw the flowchart to find the greatest of three numbers.	CO1	L3	5M

UNIT-II

4		Explain various branching statements in C with examples.	CO2	L2	10M
		OR			
5		Enlist and explain the loop control or iteration statements in C.	CO2	L2	10M

UNIT-III

6	a	Discuss the different categories of functions.	CO3	L2	5M
	b	Write a C program to illustrate the call-by-value parameter passing technique.	CO3	L3	5M
		OR			
7	a	What is recursion? What are the advantages and Disadvantages of recursion?	CO3	L2	4M
	b	Write a C program to find the factorial of a given number using recursion.	CO3	L3	6M

UNIT-IV

8	a	Explain the concept of functions returning pointers with an example.	CO4	L2	5M
	b	Write a C program to read and print an array of elements using pointers.			5M
		OR			
9	a	Explain the declaration and initialization of an array of strings.	CO4	L2	5M
	b	Write a C program to find whether a given string is a palindrome or not.	CO4	L3	5M

UNIT-V

10	a	Define a Structure and write the general syntax for declaring and accessing members.	CO5	L2	5M
	b	How to copy and compare structure variables? Illustrate with an example.	CO5	L3	5M
		OR			
11	a	How are data elements stored under unions? Explain with an example.	CO5	L2	5M
	b	Write a C program to illustrate the concept of structure within structure.	CO5	L3	5M

***** END *****

O.P.Code: 18HS0803	R18	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech II Year II Semester Supplementary Examinations May-2025
BIOLOGY FOR ENGINEERS
(Common to ECE, CSIT CSE)

Time: 3 Hours **Max. Marks: 60**

PART-A
(Answer all the Questions **5 x 2 = 10** Marks)

1	a	What are autotrophs & heterotrophs?	CO1	L2	2M
	b	Define taxonomy.	CO1	L1	2M
	c	What is meant by dominant and recessive?	CO2	L1	2M
	d	How many types of nucleic acids are there? Write any two functions.	CO3	L1	2M
	e	What are the general features of TCA cycle?	CO5	L2	2M

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	Draw ultra structure of Prokaryotic cell.	CO1	L1	5M
	b	Compare the characteristics of Prokaryotic and Eukaryotic cell.	CO1	L2	5M
		OR			
3	a	Draw neat labeled diagram of Plant cell. Write the differences between Plant cell and Animal cell.	CO1	L1	5M
	b	Define classification. Give an account on three Kingdom classifications.	CO1	L2	5M

UNIT-II

4	a	Explain Mendel's law of segregation and independent assortment in terms of genetics	CO2	L2	5M
	b	What is Mitotic Cell division? Explain Mitosis with neat diagram.	CO2	L2	5M
		OR			
5	a	Describe how color blindness is passed on to children.	CO2	L1	5M
	b	Discuss the mechanism and genetics behind Hemophilia.	CO2	L2	5M

UNIT-III

6	a	Describe the enzyme nature, properties and nomenclature.	CO3	L2	5M
	b	Classify the Proteins.	CO3	L1	5M
		OR			
7	a	Summarize the types of RNA and its functions in cells.	CO3	L2	6M
	b	What are carbohydrates? Classify and explain monosaccharide's.	CO3	L1	4M

UNIT-IV

8	a	Draw a neat diagram of DNA double helix structure.	CO4	L1	6M
	b	What are the two Purines & Pyrimidines of DNA?	CO4	L1	4M
		OR			
9	a	Explain about Genetic material of DNA?	CO4	L2	5M
	b	Describe the structure and complementary base pairing of DNA.	CO4	L2	5M

UNIT-V

10	a	What are photo systems?	CO5	L1	5M
	b	Write a note on sterilization and various techniques used.	CO5	L2	5M
		OR			
11	a	Illustrate step by step process in Glycolysis.	CO5	L2	5M
	b	What is culture medium? Explain types of culture media based on its physical state.	CO5	L2	5M

***** END *****

O.P.Code: 18HS0801	R18	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Supplementary Examinations May-2025
CHEMISTRY
(Common to CE, AGE, ME & EEE)

Time: 3 Hours **Max. Marks: 60**

PART-A
(Answer all the Questions **5 x 2 = 10** Marks)

1	a	Define aromaticity and non aromaticity.	CO1	L2	2M
	b	Define cell potential.	CO2	L1	2M
	c	Which salts caused to temporary and permanent hardness.	CO3	L2	2M
	d	Why thermosetting plastics cannot be reused and restored?	CO4	L2	2M
	e	What are chromophores? Give one example.	CO5	L2	2M

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2		Explain the Schrodinger wave equation for the wave mechanical model of an atom. Give the significance of wave function .	CO1	L3	10M
		OR			
3	a	Write the postulates of crystal field theory.	CO1	L2	4M
	b	Explain the crystal field splitting of orbital's in octahedral complexes.		L4	6M

UNIT-II

4		Discuss the various factors influencing the rate of corrosion based on nature of metal & nature of environment.	CO2	L2	10M
		OR			
5	a	Explain electroplating of Nickel.	CO2	L2	5M
	b	Write a note on solubility product.			5M

UNIT-III

6		Describe the Ion exchange process for demineralization of water. what are the advantages and disadvantages of ion exchange process ?	CO3	L2	10M
		OR			
7	a	What are the units to express hardness of water?	CO3	L2	5M
	b	What is Priming and Foaming?	CO3	L2	4M

UNIT-IV

8		Write the preparation ,properties & uses of Bakelite.	CO4	L3	10M
		OR			
9	a	Explain oxidation and reduction reactions with examples.	CO4	L2	6M
	b	Explain the synthesis of the Penicillin.	CO4	L3	4M

UNIT-V

10		Explain principle, instrumentation and its applications of Scanning Electron Microscopy (SEM).	CO5	L3	10M
		OR			
11		Give an account on principle and instrumentation of IR spectroscopy .	CO5	L3	10M

***** END *****

O.P.Code:18EC0420	R18	H.T.No.									

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

B.Tech III Year II Semester Supplementary Examinations May-2025

MICROPROCESSORS AND MICROCONTROLLERS

(ECE & EEE)

Time: 3 Hours **Max. Marks: 60**

PART-A

(Answer all the Questions **5 x 2 = 10** Marks)

1	a	Define machine language.	CO1	L2	**2M**
	b	Give the significance of instruction decoder.	CO2	L2	**2M**
	c	List out the interrupts of 8051 µC.	CO2	L2	**2M**
	d	Compare RLC A and RRC A.	CO3	L2	**2M**
	e	Give the different methods to implement switch debouncing.	CO4	L2	**2M**

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2		Explain how computers are classified from large computers to single chip microcontrollers.	CO1	L2	**10M**

OR

3	a	What is the need of memory? And classify different types of memory.	CO1	L2	**5M**
	b	Compare RAM and ROM memories.	CO1	L2	**5M**

UNIT-II

4	a	Sketch neat block diagram of 8085 microprocessor. Explain.	CO2	L2	**5M**
	b	Explain the different types of interrupts available in 8085 µP.	CO2	L2	**5M**

OR

5	a	Define the following pins: i) READY ii) ALE iii) RESET	CO2	L2	**6M**
	b	List out the important features of 8085 microprocessor.	CO2	L2	**4M**

UNIT-III

6	a	Describe the functionality of I/O ports present in 8051 µC.	CO2	L2	**5M**
	b	Draw the flag register of 8051 µC and describe the functionality of each flag in detail.	CO2	L2	**5M**

OR

7		Draw the pin diagram of 8051 µC and describe the functionality of each pin indetail.	CO2	L2	**10M**

UNIT-IV

8	a	Write an assembly program of 8051 µC to subtract two 8-bit numbers and store the result in a memory location.	CO3	L4	**7M**
	b	Expalin the operation of DAA instruction with its syntax.	CO3	L2	**3M**

OR

9	a	List various addressing modes of 8051 microcontroller and explain them with an example each.	CO3	L2	**5M**
	b	Explain Jump and Call instructions of 8051 µC with an example.	CO3	L2	**5M**

UNIT-V

10	a	With the help of a neat diagram, show the interfacing of 7- segment display with 8051 µC and explain its operation.	CO4	L4	**7M**
	b	Write a short note on7-Segemnt display.	CO4	L2	**3M**

OR

11		Describe with a schematic, the scanning of the 4x4 matrix keyboard in an 8051 basedsystemand identifying thekeypressed.	CO4	L4	**10M**

***** END *****

O.P.Code:18CE0123	R18	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech III Year II Semester Supplementary Examinations May-2025

ENVIRONMENTAL ENGINEERING

(Civil Engineering)

Time: 3 Hours **Max. Marks: 60**

PART-A

(Answer all the Questions **5 x 2 = 10** Marks)

1	a	List out various types of water demand.	CO1	L2	**2M**
	b	Define coagulation.	CO2	L1	**2M**
	c	List four factors that affect DWF.	CO3	L2	**2M**
	d	What is the principle of working of trickling filters?	CO4	L1	**2M**
	e	List the methods of sludge disposal.	CO5	L2	**2M**

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	What is design period? Write the factors affecting the design period.	CO1	L1	**5M**
	b	Explain the variations in water demand.	CO1	L2	**5M**

OR

3		Population of a town as obtained from the census reports is as below: Estimate the population after 3 and 5 decades by (a) Arithmetic increase method (b) Geometrical method (c)Incremental Increase Method	CO1	L3	**10M**

Year	1951	1961	1971	1981
Population	100000	109000	116600	128200

UNIT-II

4	a	Draw the layout and general outline of surface and subsurface water treatment plant.	CO2	L2	**5M**
	b	Write short notes on types of screens.	CO2	L2	**5M**

OR

5	a	List the types of chlorination and explain break point chlorination in detail.	CO2	L2	**5M**
	b	Determine the dimensions of a set of rapid sand filters for treating water required for apopulation of 10000 with an average rate of demand 200 lpcd.	CO2	L3	**5M**

UNIT-III

6		A certain district of a city has a projected population of 80000 residing over an area of 70 hectares. Find the design discharge for the sewer line, for the following data: (i) Rate of water supply = 200 LPCD (ii) Average impermeability coefficient for the entire area =0.3 (iii) Time of concentration = 50 minutes.	CO3	L3	**10M**

OR

7	a	List different types of sewerage system? Give the advantages and disadvantages of any one system.	CO3	L2	**6M**
	b	What are sewer appurtenances? Sketch and explain the use of drop man hole.	CO3	L2	**4M**

UNIT-IV

8		Design a grit chamber for a maximum wastewater flow of 10000 m^3 /day to remove particles up to of 0.25 mm dia, having specific gravity of 2.65. The settling velocities of these particles is found to range from 0.02 to 0.025 m/sec. Maintain a constant flow through velocity of 0.28 m/sec through the provision of a proportional flow weir.	CO4	L3	**10M**
		OR			
9	**a**	With a sketch, explain the working of a grit chamber.	CO4	L2	**5M**
	b	Design a primary sedimentation for treating 1 MLD of wastewater. Make suitable assumptions.	CO4	L3	**5M**

UNIT-V

10		Design a septic tank for 200 persons assuming water supply as 120 lpcd.	CO5	L3	**5M**
		OR			
11	**a**	Explain the factors affecting the sludge digestion.	CO5	L2	**5M**
	b	Explain the process involved in self-purification.	CO5	L2	**5M**

***** END *****

O.P.Code:18CS0509	R18	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech II Year II Semester Supplementary Examinations May-2025

FORMAL LANGUAGES AND AUTOMATA THEORY

(Common to CSE & CSIT)

Time: 3 Hours **Max. Marks: 60**

PART-A

(Answer all the Questions **5 x 2 = 10** Marks)

1	**a**	Define Grammar? What are the tuples.	**CO1**	**L1**	**2M**
	b	What is FA?	**CO2**	**L2**	**2M**
	c	Define LR.	**CO3**	**L3**	**2M**
	d	What is PDA?	**CO4**	**L1**	**2M**
	e	Define an Expression.	**CO5**	**L2**	**2M**

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

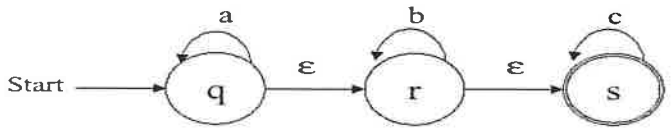
2	**a**	Define NFA. What are the differences between DFA & NFA?	**CO1**	**L3**	**3M**
	b	Minimize the following DFA.	**CO1**	**L2**	**7M**

Present states	i/p=0	i/p=1
q0	q1	q2
q1	q2	q3
q2	q2	q4
* q3	q3	q3
*q4	q4	q4
q5	q5	q4

**Here q0 is initial state and q3 and q4 are final states.

OR

3		Convert the following NFA with ε moves to DFA without ε moves.	**CO1**	**L3**	**10M**



UNIT-II

4	**a**	Construct an equivalent FA for the given regular expression (0+1)*(00+11)(0+1)*	**CO2**	**L1**	**5M**
	b	List out the identities rules of Regular expression.	**CO2**	**L1**	**5M**

OR

5	**a**	Construct an equivalent FA for given regular expression (0+1)*(00+11)(0+1)*	**CO2**	**L3**	**5M**
	b	Prove that the language L= $\{a^n b^n c^n \mid n>=1\}$ is not regular using pumping lemma.	**CO2**	**L1**	**5M**

UNIT-III

6	a	Construct CFG for the language consisting of palindromes of the string?	CO3	L2	5M
	b	Define Ambiguous grammar with one example?	CO3	L2	5M
		OR			
7	a	Perform left factor from the grammar A→abB/aB/cdg/cdeB/cdfB.	CO3	L3	6M
	b	Explain Left recursion and Left factoring.	CO3	L3	4M

UNIT-IV

8	a	Write the process for convert PDA into an equivalent CFG.	CO4	L2	6M
	b	A PDA is more powerful than a finite automaton. Justify this statement.	CO4	L2	4M
		OR			
9	a	Define Instantaneous description (ID) in PDA.	CO4	L2	5M
	b	Explain the graphical notation of PDA with one example.	CO4	L2	5M

UNIT-V

10		Explain in detail about variations of the TM.	CO5	L1	10M
		OR			
11		Construct a Turing machine that recognizes the language $a^n b^n c^n$.	CO5	L1	10M

***** END *****

O.P.Code: 18CS0523	R18	H.T.No.										

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech. III Year II Semester Supplementary Examinations May-2025

WEB TECHNOLOGIES

(CSE & CSIT)

Time: 3 Hours **Max. Marks: 60**

PART-A

(Answer all the Questions **5 x 2 = 10** Marks)

1	a	Interpret comments in HTML.	CO1	L2	2M
	b	List the six JavaScript data types.	CO2	L1	2M
	c	Compare the functions of doGet() and doPost() methods.	CO3	L2	2M
	d	Define cookies.	CO4	L1	2M
	e	What is WSDL?	CO5	L1	2M

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	Develop a HTML table with columns for a Country name, National sport, National flower, National animal, National tree. There must be atleast five states as rows in the table	CO1	L3	5M
	b	Explain about table tags with suitable example.	CO1	L2	5M
		OR			
3	a	Build web page with Images and give example .	CO1	L3	5M
	b	Summaruize about Working with Links and URLs with example.	CO1	L2	5M

UNIT-II

4	a	Discuss in detail about backgrounds in CSS.	CO2	L2	5M
	b	Analyze in how many ways we can insert CSS in an html document with an example for each.	CO2	L4	5M
		OR			
5	a	Define Function in JavaScript and explain functions with arguments.	CO2	L2	5M
	b	Examine the features of cascading style sheets	CO2	L4	5M

UNIT-III

6	a	Illustrate about working of cookies with an example.	CO3	L2	5M
	b	Build servlet code to get parameters from HTML document.	CO3	L3	5M
		OR			
7	a	Explain about a)HTTP servlet Request b)HTTP servlet Response with syntax.	CO3	L2	4M
	b	Develop a Java servlet program to change the Background color of the page by the color selected by the user from the list box	CO3	L3	6M

UNIT-IV

8	a	Explain DOM based XML processing.	CO4	L2	4M
	b	Write a php program to check the user credentials, whether they are correct are not. If the credentials are correct then the user will be redirected to another page.	CO4	L3	6M
		OR			
9	a	Describe program control statements in PHP.	CO4	L2	5M
	b	What is the difference between Session and Cookie? Write a program to create a session, to set a value in session, and to remove data from a session	CO4	L3	5M

UNIT-V

10	a	Discuss the security issues of AJAX.	CO5	L2	5M
	b	Identify the method of creating a web service client with an example.	CO5	L3	5M

OR

11	a	What is the difference between XML HTTP Request and AJAX ?	CO5	L2	5M
	b	Build a program to show how XML is changing the Web.	CO5	L3	5M

***** END *****

O.P.Code: 18HS0831	R18	H.T.No.										

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Supplementary Examinations May-2025
MATHEMATICS – II
(Common to All)

Time: 3 Hours **Max. Marks: 60**

PART-A
(Answer all the Questions **5 x 2 = 10** Marks)

1	a	Verify the Exactness of $(2x-y+1)\,dx+(2y-x-1)dy=0$	CO1	L2	2M
	b	Find Particular Integral of $(D^2+6D+9)y=2e^{-3x}$	CO2	L2	2M
	c	Evaluate $\int_0^1\int_0^1 \frac{dx\,dy}{\sqrt{1-x^2}\sqrt{1-y^2}}$	CO3	L2	2M
	d	Define Bilinear Transformation	CO4	L1	2M
	e	State Cauchy's residue theorem	CO5	L1	2M

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	Solve $\frac{dy}{dx}+\frac{ycosx+siny+y}{sinx+xcosy+x}=0$	CO1	L2	5M
	b	Solve $x\frac{dy}{dx}+y=x^3y^6$	CO1	L2	5M
		OR			
3	a	Solve $y=psinp+cosp$	CO1	L2	5M
	b	Solve $y=2px+y^2p^3$	CO1	L2	5M

UNIT-II

4		Solve $(D^2+1)y=\cos x$ by method of variation of parameters	CO2	L2	10M
		OR			
5		Solve $x^2\frac{d^2y}{dx^2}-x\frac{dy}{dx}+y=\log x$	CO2	L2	10M

UNIT-III

6	a	Evaluate $\iint(x^2+y^2)dxdy$ in the positive quadrant for which $x+y\le 1$.	CO3	L2	5M
	b	Evaluate $\int_0^a\int_0^{\sqrt{1-x^2}}\int_0^{\sqrt{1-x^2-y^2}} \frac{dxdydz}{\sqrt{1-x^2-y^2-z^2}}$	CO3	L2	5M
		OR			
7		Change the order of integration in $I=\int_0^1\int_{x^2}^{2-x}(xy)dydx$ and hence evaluate	CO3	L2	10M

UNIT-IV

8	a	Show that $u=\frac{1}{2}log(x^2+y^2)$ is Harmonic	CO4	L2	5M
	b	Find an analytic function whose real part is $e^{-x}(xsiny-ycosy)$.	CO4	L2	5M
		OR			
9		Find the bilinear transformation which maps the points $(\infty, i, 0)$ in to the points $(-1, -1, 1)$in w-plane	CO4	L2	10M

UNIT-V

10	a	Evaluate the line integral $\int_c (y - x - 3x^2 i)dz$ where c consists of the line segments from $z = 0$ to $z = i$ and the other from $z = i$ to $z = i + 1$.	CO5	L2	5M
	b	Evaluate $\int_c \frac{\log dz}{(z-1)^3}$ where $c: \lvert z-1 \rvert = \frac{1}{2}$ using Cauchy's integral formula	CO5	L2	5M

OR

11	a	Find the Laurent series of the function $f(z) = \frac{z}{(z+1)(z+2)}$ about $z = -2$	CO5	L2	5M
	b	Find the residue of the function $f(z) = \frac{1}{(z^2+4)^2}$ where c is $\lvert z - i \rvert = 2$	CO5	L2	5M

***** END *****

O.P.Code:18ME0302	R18	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Supplementary Examinations May-2025
ENGINEERING GRAPHICS& DESIGN
(Common to CE, AGE, ME, & EEE)

Time: 3 Hours **Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1	a	Draw an ellipse having major axis is equal to 100 mm and the minor axis is equal to 70 mm. Use the concentric circle method	L2	6M
	b	Draw a parabola having a distance of 50 mm between the focus and directrix. Draw a normal and tangent to the parabola at a point 35 mm from the focus.	L2	6M

OR

2		Draw the hypocycloid of a circle of 50mm diameter which rolls inside another circle of 100 mm diameter for one revolution. Draw tangent and normal at any point on the curve.	L2	12M

UNIT-II

3		Draw the projections of the following points, keeping the distance between the projectors as 25mm on the same reference lines. A – 20mm above HP and 30mm in front of VP B – 20mm above HP and 30mm behind VP C – 20mm below HP and 30mm behind VP D – 20mm below HP and 30mm in front of VP E – On HP and 30mm in front of VP F – On VP and 20mm above HP G – Lying on both HP and VP	L2	12M

OR

4		A line AB, 50mm long, has its end A away from the HP and VP than end B. The line is inclined to the HP at 30 degree and to the VP at 45degree. Draw the projections if end A is 35mm above the HP and 50mm in front of the VP.	L2	12M

UNIT-III

5		A square plane ABCD of side 30mm, is parallel to HP and 20mm away from it. Draw the projections of the plane, when (i) two of its sides are parallel to VP and (ii) and one of its side is inclined at 300 to VP.	L2	12M

OR

6		Draw the projections of a cone, base 30 mm diameter and axis 50 mm long , resting on HP on a point of its base circle with (a) the axis making an angle of 450 with HP and its top view making an angle of 300 with VP.	L2	12M

UNIT-IV

7		A cube of side 40 mm, is resting on HP on one of its faces, with a vertical face inclined at 30 degree to VP. It is cut by a section plane inclined at 45 degree to HP and passing through the axis at 8 mm from the top surface. Draw the projections of the solid and also show the true shape of the section.	L2	12M

OR

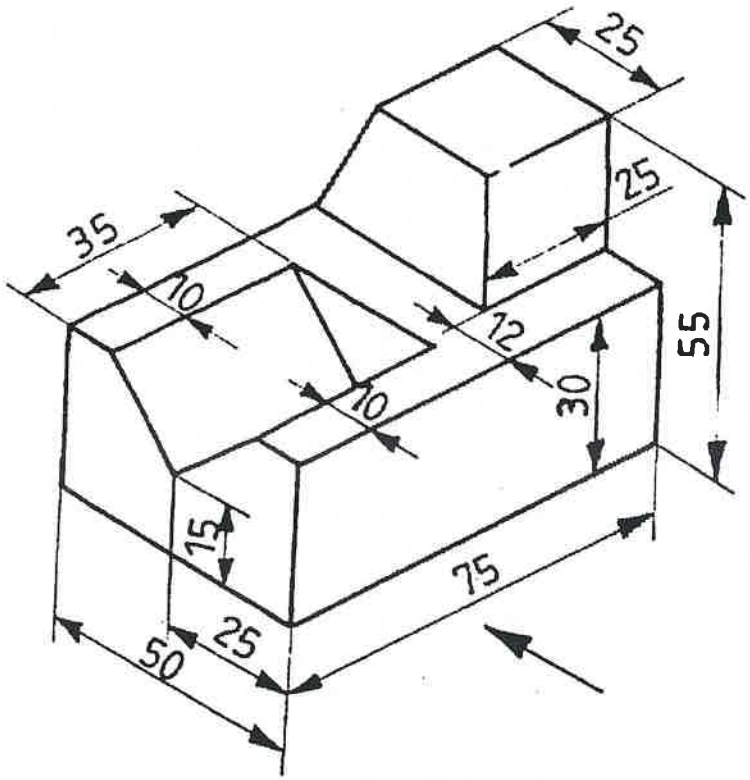
8		A square pyramid, with side of base 30 mm and axis 50 mm long, is resting on its base on HP with an edge of the base parallel to VP. It is cut by a section plane, perpendicular to VP and inclined at 45 degree to HP. The section plane is passing through the mid-point of the axis. Draw the development of the surface of the cut pyramid.	L2	12M

UNIT-V

9	Draw the isometric projection of a pentagonal prism of base side 35 mm and axis 60mm. The prism rests on its base on the HP with an edge of the base parallel to the VP.	L2	12M

OR

10	Draw three views of the blocks shown pictorially in figure according to first angle projection	L2	12M



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