SET-1

CODE: A1HS407 | **R23** | **H.T.No:**

RAVINDRA COLLEGE OF ENGINEERING FOR WOMEN

(AUTONOMOUS)

B.Tech II Year II Semester Regular Examinations May 2025

Subject Name: **DESIGN THINKING FOR INNOVATION**

Branch: CSE

Time: 3 Hours **Max. Marks: 70**

Instructions:

1. Answer all 10 questions from Part-A. Each question carries two marks
2. Answer one full question from each unit in Part-B. Each full question carries 10 marks

PART-A					
1	a	Name two new-age materials used in modern product design.	2M	CO	L1
	b	What are the five stages of the Design Thinking process?	2M	CO	L1
	c	How does prototyping help improve design solutions?	2M	CO	L3
	d	How can design thinking encourage innovation in product development?	2M	CO	L2
	e	How can the value of creativity be evaluated in terms of product success?	2M	CO	L3
	f	How does innovation contribute to organizational growth?	2M	CO	L3
	g	How does innovation contribute to sustainable product design?	2M	CO	L2
	h	What are *product specifications*?	2M	CO	L1
	i	What is meant by a prototype in design thinking?	2M	CO	L1
	j	What is meant by reliability in the context of a startup product?	2M	CO	L2
PART-B					
UNIT-I					
2	a	Illustrate any three principles of design through practical applications in product or graphic design.	5M	CO1	L3
	b	Describe the characteristics of dot, line, shape, and form. Provide examples of how each is used in design.	5M	CO1	L3
OR					
3	a	Discuss how the principles of design contribute to the effectiveness of a design composition.	5M	CO1	L4
	b	Discuss how the introduction of new materials has influenced product innovation and sustainability in industrial design.	5M	CO1	L4
UNIT-II					
4	a	Explain the steps of the design thinking process—Empathize, Analyze, Ideate, and Prototype—with suitable examples.	5M	CO2	L3
	b	Analyze how the design thinking process has been used to drive a technological or product-based invention. Support your answer with a real-world example.	5M	CO2	L4
OR					
5	a	Discuss how brainstorming sessions influence the quality and diversity of ideas in the ideation stage of design thinking.	5M	CO2	L4

	b	Define and explain the use of any two tools of design thinking. How do they contribute to effective problem-solving?	5M	CO2	L3
UNIT-III					
6	a	Describe the process of transforming a creative idea into an innovative product or service. Provide an example to support your answer.	5M	CO3	L3
	b	What are the characteristics of an effective innovation team? Explain how team collaboration contributes to successful innovation.	5M	CO3	L2
OR					
7	a	Discuss how organizations can build a culture that supports both creativity and innovation.	5M	CO3	L5
	b	Analyze how creativity and innovation influence organizational success and competitive advantage. Support your answer with examples.	5M	CO3	L4
UNIT-IV					
8	a	What are the key stages of product planning? Explain how each stage supports the product development lifecycle.	5M	CO4	L3
	b	Describe any two types of product strategies. How do these strategies impact product development and market positioning?	5M	CO4	L4
OR					
9	a	Analyze the factors that contribute to product value. How can a company enhance the perceived value of its product without increasing costs?	5M	CO4	L4
	b	Describe any two types of product strategies. How do these strategies impact product development and market positioning?	5M	CO4	L3
UNIT-V					
10	a	Explain the importance of building and testing business cases in the context of startup growth and sustainability.	5M	CO5	L3
	b	Discuss any three principles of design thinking and explain how they help redefine traditional business models.	5M	CO5	L5
OR					
11	a	How does design thinking aid in defining and testing business models for startups? Support your answer with an example.	5M	CO5	L3
	b	Evaluate the role of design thinking in dealing with change and unpredictability in fast-evolving industries.	5M	CO5	L6

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CODE: A1HS401a	R23	H.T.No:										

RAVINDRA COLLEGE OF ENGINEERING FOR WOMEN
(AUTONOMOUS)

SET-2

B.Tech II Year II Semester Regular Examinations May 2025

Subject Name: Managerial Economics and Financial Analysis
Branch: CSE

Time: 3 Hours **Max. Marks: 70**

Instructions:
1. Answer all 10 questions from Part-A. Each question carries two marks
2. Answer one full question from each unit in Part-B. Each full question carries 10 marks

PART-A					
1	a	What is demand? Explain its functions?	2M	CO1	BTL1
	b	Explain types of elasticity of demand?	2M	CO1	BTL2
	c	Explain the concept of least cost combination?	2M	CO2	BTL2
	d	What is the concept of Break-Even analysis?	2M	CO2	BTL1
	e	Explain about the Joint stock companies?	2M	CO3	BTL2
	f	What is monopoly? Explain its advantages?	2M	CO3	BTL1
	g	Define capital budgeting? Explain its characteristics?	2M	CO4	BTL1
	h	List and explain the components of working capital?	2M	CO4	BTL4
	i	What is ledger? Explain its characteristics?	2M	CO5	BTL1
	j	Explain about Balance sheet?	2M	CO5	BTL2
PART-B					
UNIT-I					
2	a	Define demand forecasting? Explain demand forecasting methods?	5M	CO1	BTL1
	b	Explain the functions of managerial economics?	5M	CO1	BTL2
OR					
3	a	Explain nature and scope of managerial economics?	5M	CO1	BTL2
	b	Explain what are factors influencing demand?	5M	CO1	BTL2
UNIT-II					
4	a	Solve the following problem, Fixed cost Rs 7500/-, sales Rs 40000/-, variable cost Rs 17500/-. Calculate contribution, profit, BEP, Margin of safety.	5M	CO2	BTL6
	b	Explain different types costs?	5M	CO2	BTL2
OR					
5	a	Analyze different of Internal and External economics of scale?	5M	CO2	BTL4
	b	Explain the concept of Break-Even Analysis?	5M	CO2	BTL2
UNIT-III					
6	a	What are the different types of Business Organization?	5M	CO3	BTL1
	b	What is market? Distinguish between perfect and imperfect markets?	5M	CO3	BTL1
OR					
7	a	Explain pricing methods?	5M	CO3	BTL2
	b	Define partnership? Explain its characteristics?	5M	CO3	BTL1
UNIT-IV					
8	a	Explain the importance of working capital?	5M	CO4	BTL2
	b	Define capital budgeting? Explain capital budgeting techniques?	5M	CO4	BTL1
OR					
9	a	Solve the following problem.	5M	CO4	BTL3

		A project required an investment of Rs 50k, which is generating the cash flows Rs 18k, 22K, 24K, 15K and 12k over its life time. Cost of the capital is 12%. Compute NPV of the project?			
	b	What are factors influencing working capital in modern business?	5M	CO4	BTL1
		UNIT-V			
10	a	Explain the Accounting principles?	5M	CO5	BTL2
	b	Explain the importance of ratio analysis?	5M	CO5	BTL2
		OR			
11	a	The following trial balance have been taken out from the books of XYZ as on 31st December, 2017. Closing stock is valued at Rs. 90,000 Prepare the trading and profit and loss account of the business for the year ended 31.12.2017	10 M	CO5	BTL4

Particulars	**Dr. (**Rs.)	**Cr. (**Rs.)
Plant and Machinery	1,00,000	
Opening stock	60,000	
Purchases	1,60,000	
Building	1,70,000	
Carriage inward	3,400	
Carriage outward	5,000	
Wages	32,000	
Sundry debtors	1,00,000	
Salaries	24,000	
Furniture	36,000	
Trade expenses	12,000	
Discount on sales	1,900	
Advertisement	5,000	
Bad debts	1,800	
Drawings	10,000	
Bills receivable	50,000	
Insurance	4,400	
Bank balances	20,000	
Sales		4,80,000
Interest received		2,000
Sundry creditors		40,000
Bank loan		100,000
Discount on purchases		2,000
Capital		171,500
	7,95,500	7,95,500

CODE: A1CS404T	R23	H.T.No:									

RAVINDRA COLLEGE OF ENGINEERING FOR WOMEN

(AUTONOMOUS)

B.Tech II Year II Semester Regular Examinations May 2025

Subject Name: **OBJECT-ORIENTED PROGRAMMING THROUGH JAVA**

Branch: CSE

Time: 3 Hours **SET-1** **Max. Marks: 70**

Instructions:

1. Answer all 10 questions from Part-A. Each question carries two marks
2. Answer one full question from each unit in Part-B. Each full question carries 10 marks

PART-A					
1	a	Write the syntax of for loop with example.	2M	CO1	BTL1
	b	Write a Java program to demonstrate the use of the ternary operator to find the maximum of two numbers.	2M	CO1	BTL2
	c	What is the purpose of this keyword in java?	2M	CO2	BTL1
	d	Write a simple Java class 'Person' with attributes 'name' and 'age', and a method to print the person's details.	2M	CO2	BTL2
	e	What is an array in Java? How do you declare it in Java?	2M	CO3	BTL1
	f	Write the difference between extending an interface and implementing an interface?	2M	CO3	BTL2
	g	How do you check if a file exists or not using the File class?	2M	CO5	BTL2
	h	List and describe any two classes available in java.util package.	2M	CO6	BTL1
	i	What are the different ways to declare and initialize strings in java?	2M	CO6	BTL1
	j	How is Set different from List in Java?	2M	CO6	BTL2
PART-B					
UNIT-I					
2	a	Write a Java program to swap two numbers without using third variable.	5M	CO1	BTL2
	b	Explain the four basic principles of Object-Oriented Programming with examples.	5M	CO1	BTL2
OR					
3	a	Explain how shift operators can be combined with bitwise AND, OR, and XOR operators to manipulate specific bits in a binary number? Provide an example program demonstrating this combination?	5M	CO1	BTL3
	b	Discuss the various control statements with suitable examples in java?	5M	CO1	BTL2
UNIT-II					
4	a	Differentiate between constructors and instance methods in Java?	5M	CO2	BTL4

	b	Explain the concept of nested classes in Java and classify the different types of nested classes.	5M	CO2	BTL2
OR					
5	a	Demonstrate method overloading in Java with a class 'Calculator' that provides overloaded methods to add two, three, or four integers.	5M	CO2	BTL3
	b	Write a Java program that demonstrates the difference between passing an object by value and passing a reference.	5M	CO2	BTL4
UNIT-III					
6	a	Write a java Program to find largest and smallest elements in the given array of elements.	5M	CO3	BTL2
	b	Write a java program to implement multilevel inheritance.	5M	CO3	BTL3
OR					
7	a	Write a Java program to create an interface 'Pet' and implement it in two classes: 'Cat' and 'Dog'. Also, demonstrate how multiple interfaces can be implemented.	5M	CO3	BTL6
	b	Write a Java program to perform linear search on an array of integers.	5M	CO3	BTL2
UNIT-IV					
8	a	Write a java program to add sub package into a package.	5M	CO6	BTL2
	b	What are byte streams in Java? Describe the primary classes associated with byte streams and their key functions?	5M	CO5	BTL2
OR					
9	a	Explain the need for wrapper classes in Java? How do they differ from primitive data types?	5M	CO6	BTL4
	b	Write a Java program that uses the throw keyword to raise a custom exception when invalid input is provided.	5M	CO4	BTL3
UNIT-V					
10	a	Write a java program that replaces all occurrences of a specific word in a string with another word using the replace all method.	5M	CO6	BTL3
	b	Describe how to create a new thread in Java using the Thread class? What is the role of the run() method in this process?	5M	CO6	BTL2
OR					
11	a	Explain deadlock with an example.	5M	CO6	BTL3
	b	Explain any five important methods of the String class.	5M	CO5	BTL2

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CODE: A1CS403T	R23	H.T.No:									

RAVINDRA COLLEGE OF ENGINEERING FOR WOMEN
(AUTONOMOUS)

SET-2

B.Tech II Year II Semester Regular Examinations May 2025

Subject Name: **OPERATING SYSTEMS**

Branch: CSE

Time: 3 Hours **Max. Marks: 70**

Instructions:

1. Answer all 10 questions from Part-A. Each question carries two marks
2. Answer one full question from each unit in Part-B. Each full question carries 10 marks

PART-A					
1	a	What are the basic functions of operating systems?	2M	CO1	BL1
	b	List some of the system calls.	2M	CO1	BL1
	c	What is a thread?	2M	CO2	BL1
	d	Define concurrency	2M	CO2	BL1
	e	What are the two possibilities exist with monitor	2M	CO3	BL1
	f	Write the condition for a deadlock	2M	CO3	BL1
	g	What are the drawbacks of contiguous allocation of disk space?	2M	CO4	BL1
	h	What are the basic functions of operating systems?	2M	CO4	BL1
	i	List the various file attributes	2M	CO5	BL1
	j	Outline goals of file protection	2M	CO5	BL2
PART-B					
UNIT-I					
2	a	Summarize the objectives and functions of an operating System	5M	CO1	BL6
	b	Explain operating system functions and services in detail.	5M	CO1	BL2
OR					
3	a	Interpret about user and operating-system interface	5M	CO1	BL2
	b	Summarize the concept of operating system debugging	5M	CO1	BL2
UNIT-II					
4	a	Distinguish between thread and process	5M	CO2	BL4
	b	Elaborate about threading issues.	5M	CO2	BL6
OR					
5	a	Analyze in detail about thread libraries	5M	CO2	BL4
	b	Illustrate the execution and compare the performance of the Round Robin (quantum =3) and Shortest remaining time First (Preemptive) scheduling algorithms in terms of average turn-around time, and average waiting time for the following jobs?	5M	CO2	BL2

Job	Burst Time	Arrival time
1	10	3
2	10	4
3	2	1
4	11	2
5	5	0

<table>
<tr><td colspan="6">UNIT-III</td></tr>
<tr><td>6</td><td>a</td><td>Consider the following questions based on the banker 's algorithm:
<table>
<tr><th rowspan="2">Process</th><th colspan="4">Allocation</th><th colspan="4">Max</th><th colspan="4">Available</th></tr>
<tr><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th></tr>
<tr><td>P0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>2</td><td>1</td><td>0</td><td>1</td><td>3</td><td>1</td><td>0</td></tr>
<tr><td>P1</td><td>1</td><td>4</td><td>4</td><td>1</td><td>1</td><td>6</td><td>5</td><td>2</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P2</td><td>1</td><td>3</td><td>6</td><td>5</td><td>2</td><td>3</td><td>6</td><td>6</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P3</td><td>0</td><td>6</td><td>3</td><td>2</td><td>0</td><td>6</td><td>5</td><td>2</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P4</td><td>0</td><td>0</td><td>1</td><td>4</td><td>0</td><td>6</td><td>5</td><td>6</td><td></td><td></td><td></td><td></td></tr>
</table>
(a) Define safety algorithm.
(b) What is the content of the matrix Need?
(c) Is the system in a safe state? Mention the order in which processes will execute.
(d) If a request from process P1 arrives for (2, 1, 1, 0), can the request be granted immediately?</td><td>10M</td><td>CO2</td><td>BL6</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td rowspan="2">7</td><td>a</td><td>Describe the conditions necessary for deadlock prevention.</td><td>5M</td><td>CO3</td><td>BL2</td></tr>
<tr><td>b</td><td>Explain various ways that can be used to recover from Deadlock</td><td>5M</td><td>CO3</td><td>BL5</td></tr>
<tr><td colspan="6">UNIT-IV</td></tr>
<tr><td rowspan="2">8</td><td>a</td><td>When does thrashing occur in an operating system, and how does it affect system performance?</td><td>5M</td><td>CO4</td><td>BL2</td></tr>
<tr><td>b</td><td>Discuss the overview of mass storage structure with a neat sketch</td><td>5M</td><td>CO4</td><td>BL6</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td rowspan="2">9</td><td>a</td><td>Define paging. Illustrate the structure of the page table</td><td>5M</td><td>CO4</td><td>BL2</td></tr>
<tr><td>b</td><td>Given the page reference string 7 0 1 2 0 3 0 4 2 3 0 3 2 1 2 0 1 7 0 1 show the number of page faults in FIFO, Optimal Replacement and Least Recently used page replacement algorithms when the frame size is 3</td><td>5M</td><td>CO4</td><td>BL2</td></tr>
<tr><td colspan="6">UNIT-V</td></tr>
<tr><td rowspan="2">10</td><td>a</td><td>Explain about free space management.</td><td>5M</td><td>CO5</td><td>BL5</td></tr>
<tr><td>b</td><td>Interpret about file- system partitions and mounting</td><td>5M</td><td>CO5</td><td>BL2</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td rowspan="2">11</td><td>a</td><td>Discuss in detail about file system and directory implementation</td><td>5M</td><td>CO5</td><td>BL6</td></tr>
<tr><td>b</td><td>What is access matrix? Explain the various methods to implement it</td><td>5M</td><td>CO5</td><td>BL1</td></tr>
</table>

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CODE: A14401 | **R23** | **H.T.No:**

RAVINDRA COLLEGE OF ENGINEERING FOR WOMEN
(AUTONOMOUS)
B.Tech II Year II Semester Regular Examinations May 2025

SET-1

Subject Name: **PROBABILITY & STATISTICS**

Time: 3 Hours Branch: CSE **Max. Marks: 70**

Instructions:
1. Answer all 10 questions from Part-A. Each question carries two marks
2. Answer one full question from each unit in Part-B. Each full question carries 10 marks

		PART-A			
1	a	Define regression coefficient of x on y and regression coefficient of y on x.	2M	CO1	BTL1
	b	State the properties of correlation coefficient.	2M	CO1	L2
	c	In a shooting test the probability of A, B, C hitting the targets are 1/2, 2/3and3/4 are respectively. If all of them first at the same target. Find the probability that i) Only one of them hits the target, ii) at least one of them hits the target.	2M	CO2	L3
	d	If P(A)= 1/3, P(B)= ¾ and P(A∪B)= 11/12 then find P(B/A) and P(A/B).	2M	CO2	L5
	e	If mean and variance of binomial distribution are 2 and 2/3 respectively, then find P[X≥1].	2M	CO3	L4
	f	If X is a Poisson variate and P(X=1)=P(X=2). Then find P(X=0).	2M	CO3	L4
	g	Define null hypothesis and alternative hypothesis.	2M	CO4	L1
	h	Write the Confidence interval for parameters in one sample and two samples.	2M	CO4	L1
	i	Write the conditions for validity of χ^2- distribution.	2M	CO5	L2
	j	What is use of F-distribution and state the important properties of the F-distribution.	2M	CO5	L1
		PART-B			
		UNIT-I			
2	a	Find the correlation coefficient for the following distribution. X: 39, 65, 62, 90, 82, 75, 25, 98, 36, 78 Y: 47, 53, 58, 86, 62, 68, 60, 91, 51, 84	5M	CO1	BTL5
	b	An analysis of the data of the partially destroyed dairy are variance x=8 and the least square regression lines for the random variables are $3x-4y=20$ and $12x-8y=62$. Find the following basis of above information (i) Mean value of x and y. (ii) Correlation coefficient between x and y. (iii) S. D of x and y.	5M	CO1	BTL5
		OR			
3	a	Obtain the correlation coefficient for the following data: X: 10, 12, 15, 22, 28, 30, 45, 60, 72 Y: 32, 35, 42, 48, 52, 30, 65, 68, 70	5M	CO1	BTL5
	b	Find the regression line of Y on X for the following data. X: 34, 48, 45, 40, 39, 52, 50 Y: 52, 48, 49, 50, 52, 44, 46	5M	CO	BTL5
		UNIT-II			
4	a	If the probability function of a random variable is given by P(X = x) = kx, x = 1, 2, 3, 4, 5; then find (*i*) the value of k. (*ii*). P(X being a prime number). (*iii*) $P[\frac{1}{2} < X < \frac{5}{2} > 1]$). (*iv*). the cumulative distribution function of X.	5M	CO2	BTL4
	b	Three machines M_1, M2 and M_3 produce identical items. Of their respective output 5%, 4% and 3%of items are faulty. On a certain day, M_1 has produced 25% of the total output, M_2 has produced 30% and M_3 the remainder. An item selected at random is found to be defective, determine the probabilities that it is manufactured from Machine M_1, Machine M_2 or Machine M_3.	5M	CO2	BTL4
		OR			
5	a	A random variable X has the following probability function	5M	CO2	BTL4

		X | -2 | -1 | 0 | 1 | 2 | 3 P(x) | 0.1 | k | 0.2 | 2k | 0.3 | k Determine (i) K (ii) Evaluate P(X ≥ 0) and P(-1<X<3) (iii) mean			
	b	State and prove Bayes theorem	5M	CO2	BTL3
		UNIT-III			
6	a	20% of items produced from a factory are defective. Find the probability that in a sample of 5 chosen at random (i) one is defective (ii) $p(1 < x < 4)$	5M	CO3	BTL3
	b	The loaves of rye bread distributed to local stores by a certain bakery have an average length of 30 centimetres and a standard deviation of 2 centimetres. Assuming that the lengths are normally distributed, what percentage of the loaves are (a) longer than 31.7 centimetres? (b) between 29.3 and 33.5 centimetres in length? (c) shorter than 25.5 centimetres?	5M	CO3	BTL4
		OR			
7	a	The number of arrivals of customers during any day follows Poisson distribution with a mean of 5. What is the probability that the total number of customers on two days selected at random is less than 2?	5M	CO3	BTL4
	b	If the masses of 300 students are normally distributed with mean 68kgs and standard deviation 3kgs,determine how many students have masses (i) Greater than 72 kg (ii) Less than or equal to 64 kgs (iii) Between 65 and 71kg inclusive.	5M	CO3	BTL4
		UNIT-IV			
8	a	The mean and standard deviation of a population are 11,795 and 14,054 respectively. Construct 95% confidence about the maximum error if $\overline{x} - 11{,}75$ and n=50 and also construct a 95% confidence interval for the true mean.	5M	CO4	BTL3
	b	In a random sample of 60 workers, the average time taken by them to get to work is 33.8 minutes with a standard deviation of 6.1 minutes. Can we reject the null hypothesis μ=32.6 minutes in favor of alternative null hypothesis μ >32.6 at α = 0.025 level of significance.	5M	CO4	BTL3
		OR			
9	a	The mean lifetime of a sample of 200 fluorescent light bulbs produced by a company is computed to be 1600 hours with a standard deviation of 130 hours. If μ is the mean lifetime of all bulbs produced by the company, test the hypothesis μ = 1650 hours against the alternative hypothesis μ > 1650 hours, using a level of significance of 0:05.	5M	CO4	BTL4
	b	The mean consumption of food grains among 800 sample middle class consumers is 760 grams per day per person with a S.D of 240 grams. A similar sample survey of 1200 working class consumers gave a mean of 820 grams with a S.D of 160 grams. Are we justified in saying that the two classes consume the same quantity of food grains? Use 5% level of significance.	5M	CO4	BTL2
		UNIT-V			
10	a	Two Horses A and B were tested according to the time (in seconds) to run a particular track with the following results. Test whether two horses have same running capacity (Difference of Two Means). Horse A | 28 | 30 | 32 | 33 | 33 | 29 | 34 Horse B | 29 | 30 | 30 | 24 | 27 | 29 | -	5M	CO5	BTL4
	b	In a big city 325 men out of 600 men were found to be smokers. Does this information support the conclusion that the majority of men in this city are smokers?	5M	CO5	BTL4
		OR			
11	a	A sample of 400 items is taken from a population whose standard deviation is 10. The mean of the sample is 40. Test whether the sample has come from a population mean 38.	5M	CO5	BTL4
	b	The nicotine contents in two random samples of tobacco are given below. Sample I | 21 | 24 | 25 | 26 | 27 | Sample II | 22 | 27 | 28 | 30 | 31 | 36 Can you say that the two samples came from the same population?	5M	CO5	BTL4

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CODE: A1CS405	**R23**	**H.T.No:**									

RAVINDRA COLLEGE OF ENGINEERING FOR WOMEN

SET-2

(AUTONOMOUS)

B.Tech II Year II Semester Regular Examinations May 2025

Subject Name: **Software Engineering**

Branch: CSE

Time: 3 Hours **Max. Marks: 70**

Instructions:

1. Answer all 10 questions from Part-A. Each question carries two marks
2. Answer one full question from each unit in Part-B. Each full question carries 10 marks

PART-A					
1	a	Define the Waterfall model.	2M	CO1	L1
	b	Mention two notable changes in software practices.	2M	CO1	L2
	c	Define software project management.	2M	CO2	L1
	d	What is a formal specification?	2M	CO2	L2
	e	What is the purpose of design review?	2M	CO3	L2
	f	Define cohesion and coupling.	2M	CO3	L1
	g	What is black-box testing?	2M	CO4	L2
	h	Define software quality.	2M	CO4	L2
	i	Define CASE environment.	2M	CO5	L2
	j	Define reuse in software engineering.	2M	CO5	L1
PART-B					
UNIT-I					
2	a	Describe the Spiral model.	5M	CO1	L2
	b	How does Agile improve software development?	5M	CO1	L4
OR					
3	a	Discuss RAD's pros and cons.	5M	CO1	L4
	b	Explain the Software Life Cycle. Why is it important.	5M	CO1	L4
UNIT-II					
4	a	Compare axiomatic and algebraic specification techniques.	5M	CO2	L3
	b	Describe the responsibilities of a software project manager in detail.	5M	CO2	L2
OR					
5	a	Explain the complexities involved in software project management.	5M	CO2	L3
	b	What are the components of a good Software Requirements Specification (SRS)?	5M	CO2	L2
UNIT-III					
6	a	Describe the key steps in the software design process.	5M	CO3	L2
	b	Compare different approaches to software design.	5M	CO3	L4
OR					
7	a	Explain the significance of agility and how it impacts the cost of change.	5M	CO3	L3
	b	Explain the characteristics of a good user interface.	5M	CO3	L2
UNIT-IV					
8	a	Describe the steps involved in the debugging process.	5M	CO4	L3

	b	Discuss the role of a Software Quality Management System (SQMS).	5M	CO4	L2
OR					
9	a	What are the key features and advantages of integration testing?	5M	CO4	L2
	b	What is software reliability? How can statistical testing help assess it?	5M	CO4	L3
UNIT-V					
10	a	Explain the concept of second-generation CASE tools and their features.	5M	CO5	L3
	b	Explain the scope and purpose of CASE tools in the software development life cycle.	5M	CO5	L2
OR					
11	a	Explain the software maintenance process models in detail.	5M	CO5	L3
	b	Discuss the concept and challenges of software reverse engineering.	5M	CO5	L3

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