

ROLL NO. _____

ENROLLMENT NO. _____

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Odd semester exam 2024-2025

PAPER: SOFTWARE ENGINEERING
TIME: 2.5 HRS

PAPER CODE: MCA 104
MAXIMUM MARKS: 60

Note: Do not write anything on paper except Roll No. & Enrollment No.

Use of mobile phone is not allowed

Please follow proper numbering while answering the questions

Course Outcomes:

CO.1 Understand the key concerns that are common to all software development processes. (Cognitive level: Understand)

CO 2. Be able to select appropriate process models, approaches and techniques to manage a given software development process. (Cognitive level: Analyze)

CO 3. Be able to elicit requirements for a software product and translate these into a documented design. (Cognitive level: Apply)

CO 4. Be able to identify dependability and security issues that affect a given software product creation. (Cognitive level: Create)

CO 5. Understand the role that testing and reuse play in the implementation phase and how these activities relate to the wider software process (Cognitive level: Evaluate)

SECTION A

All questions of Section A are compulsory.

Each question is of 5 marks

*4*5=20 marks*

Q.N.	Question	Marks	CO	BL
1.	The quick design focuses on a representation of those aspects of the software that will be visible to the customer/user. Identify the process model and the software where it is used.	5	CO2	L2
2.	A team conducted unit testing, finding 80 defects. During integration testing, they identified another 50 defects. If the total number of defects introduced in the project was 200, what is the DRE at this stage?	5	CO5	L3
3.	What do you mean by Validation and Verification for a software?	5	CO1	L1
4.	What are the myths of a customer regarding software? Give the strategies corresponding to each myth.	5	CO4	L4

SECTION B

Answer any 4 questions out of 6 in Section B

Each question is of 10 marks

*4*10=40 marks*

Q.N.	Question	Marks	CO	BL
1.	Compute the function point, productivity, documentation, cost per	10	CO2	L2

	function for the following data: 1. Number of user inputs = 28 2. Number of user outputs = 42 3. Number of inquiries = 6 4. Number of files = 5 5. Number of external interfaces = 3 6. Effort = 34.8 p-m 7. Technical documents = 245 pages 8. User documents = 125 pages 9. Cost = \$9756/ month Various processing complexity factors are: 4, 1, 0, 3, 3, 5, 4, 4, 3, 3, 2, 2, 4, 5.			
2.	Consider an E-Commerce website that specializes in clothes and apparels. Create a UML class diagram for the same and sequence diagram for the representation of placing an order on the website.	10	CO5	L3
3.	Why do we require alpha and beta testing? What is the difference between alpha and beta testing?	10	CO1	L1
4.	What is Statistical SQA? How are defects identified and prioritized using statistical SQA? Explain using an example.	10	CO4	L4
5.	What are the differences between black-box and white-box testing techniques? Explain the different test cases for a food ordering web application.	10	CO3	L5
6.	What is RMMM? What are the strategies to encounter risk?	10	CO4	L3

BL-Bloom's Taxonomy Levels (1- Remembering, 2- Understanding, 3-Applying, 4-Analysing, 5-Evaluating, 6-Creating)
CO- Course Outcomes