

[This question paper contains 4 printed pages.]

Your Roll No......

Sr. No. of Question Paper : 3504

J

Unique Paper Code : 6202452401

Name of the Paper : Software Modelling

Name of the Course : **Software Development**

Semester : IV

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. The paper has two sections. Section A is compulsory. Each question is 5 marks.
3. Attempt any four questions from **Section B**. Each question is of 15 marks.

Section A

1. (a) What is software engineering? Explain its key objectives. (5)
- (b) Write the purpose of RMMM plan. (5)

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- (c) Explain the concepts of quality assurance and quality review in software engineering. (5)
- (d) Define software architecture with appropriate example. (5)
- (e) Explain any two strategies for software testing. (5)
- (f) What is project scheduling in software engineering? (5)

Section B

2. (a) Explain various process models used in software development. (7)
- (b) What is requirement analysis in software development? Explain its importance and key activities involved in the process. (8)
3. (a) Difference between cohesion and coupling in software design. (7)
- (b) Explain project scheduling and also describe the steps involved in it. (8)
4. (a) Described different types of software reviews and their importance. (7)

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quality Review*

- (b) Describe the user interface model with example and its applications. (8)
5. (a) Explain the layered software architectural design with example. (7)
- (b) Explain the process of data design at both architectural and component levels. (8)
6. (a) Explain the fundamentals of software testing and its significance. (7)
- (b) Compare and contrast validation testing and verification testing with examples. (8)
7. (a) Consider the following set of processes with their given predecessor and time duration (in days): (5×3=15)

Process	Predecessor	Duration Days
1	-	2
2	1	3
3	1	4
4	2	2
5	3, 4	5

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- (i) Draw the network for the given information.
- (ii) Identify the critical path.
- (iii) Calculate the Earliest Start (ES), Latest Finish (LF), and Float for each process.