

Time: 3 Hours

Max. Marks: 70

Question Paper consists of FIVE units, each carrying 14 marks
 Each unit has TWO questions; either of them should be answered
 All parts of a question must be answered at one place.

UNIT-I

Marks

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|----|----|--------------------------------------------------------------------------|----|
| 1. | a) | Explain the Waterfall model of software development with a neat diagram. | 7M |
| | b) | What is the primary goal of pragmatic software cost estimation? Explain | 7M |

(OR)

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| 2. | a) | Explain the process and benefits of peer inspections. How do they contribute to achieving required quality? | 7M |
| | b) | Compare and contrast the principles of conventional software engineering with those of modern software management. | 7M |

UNIT-II

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| 3. | a) | Describe the objectives, key activities, and key artifacts of the Elaboration phase in detail. | 7M |
| | b) | Explain the Construction phase. What marks its successful completion? | 7M |

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| 4. | a) | How do the artifacts evolve from the Inception phase to the Transition phase? Illustrate with examples. | 7M |
| | b) | Categorize and explain the different types of artifacts. | 7M |

UNIT-III

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| 5. | a) | What are the key components, connectors, and constraints that typically define a software architecture model? | 7M |
| | b) | How does a model-based architecture facilitate parallel development? Provide an example. | 7M |

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| 6. | a) | List and briefly describe the five core software process workflows as defined in many iterative models | 7M |
| | b) | How does the use of a time-boxed iteration simplify the planning and estimation process for each cycle? | 7M |

UNIT-IV

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| 7. | a) | Explain how career progression typically works in a LOB organization compared to a projectized organization. | 7M |
| | b) | Why is it important for a Project Manager to understand and manage the project environment? | 7M |

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| 8. | a) | Elaborate the seven core Metrics of Project Control. | 7M |
| | b) | Discuss the four Quality indicators used in the software process? | 7M |

UNIT-V

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| 9. | a) | Write and Explain the Architecture of Devops. | 7M |
| | b) | Discuss the technical support required for DevOps integration into the software industry? | 7M |

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| 10. | a) | Write are the disadvantages of traditional methodology over Agile methodology? How to transit to the SCRUM model? | 7M |
| | b) | Discuss the DevOps delivery pipeline in detail. | 7M |