

Code No: MB193D2 /19

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM

MBA III Semester Regular/Supplementary Examinations, November-2025

Managing Software Projects (Systems)

Time: 3 Hours

Max. Marks: 75

Answer any FIVE Questions One Question from Each Unit

Question No.11 is Compulsory

UNIT-I

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| 1. | a | Define software project management. Explain its key activities and the challenges. | 6M |
| | b | Explain the step-wise project planning process with suitable examples | 6M |

OR

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| 2. | a | Differentiate between project scope and project deliverables. | 6M |
| | b | Draft a brief project plan covering objectives, scope, deliverables, and major activities. | 6M |

UNIT-II

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| 3. | a | Compare and contrast various software lifecycle models with their advantages and limitations. | 6M |
| | b | Discuss the concept of prototyping. How does it help in managing customer expectations? | 6M |

OR

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| 4. | a | Describe the iterative and incremental development approach. | 6M |
| | b | What are process artifacts and process workflows? | 6M |

UNIT-III

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| 5. | a | Compare Function Point Analysis and Source Lines of Code (SLOC) as estimation techniques. | 6M |
| | b | Explain the COCOMO model and its various levels. | 6M |

OR

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| 6. | a | What are the key steps in use case-based estimation? | 6M |
| | b | Explain Critical Path Analysis with an example network diagram. | 6M |

UNIT-IV

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| 7. | a | Define risk management in the context of software projects. What are the major categories of risk? | 6M |
| | b | Explain how PERT can be applied for risk assessment and time estimation. | 6M |

OR

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| 8. | a | What is the Monte Carlo simulation approach in project management? Discuss its role. | 6M |
| | b | How does risk mitigation planning contribute to the success of large scale IT projects? | 6M |

UNIT-V

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| 9. | a | Discuss the role of Earned Value Analysis in tracking project progress. | 6M |
| | b | Explain the process of resource scheduling and how it affects project timelines and costs. | 6M |

OR

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| 10. | a | What are product quality and process quality metrics? | 6M |
| | b | Explain how the CMM contribute to defining and maintaining software quality in software project management. | 6M |

CASE STUDY

11 **Scenario:**

15M

You are managing a project to develop a Banking Transaction Automation System. During execution, you notice delays, poor defect tracking, and communication gaps between teams. The client is also unhappy with documentation and quality standards. To overcome these issues, your company decides to adopt ISO 9016 guidelines and CMM Level 3 practices.

- a.** How can effective project monitoring and control help resolve these issues?
- b.** Explain how ISO 9016 can improve product and process quality.
- c.** Describe how CMM practices enhance coordination, documentation, and overall project maturity.