Roll No. | | | | | | | | | | |

**B.E (FT) END SEMESTER EXAMINATIONS – APRIL / MAY 2025**

COMPUTER SCIENCE AND ENGINEERING
SEMESTER VII
CS6022 SOFTWARE PROJECT MANAGEMENT
(Regulation 2018 - RUSA)

Time: 3 Hours | Answer ALL Questions | Max. Marks 100



**PART-A (10 x 2 = 20 Marks)**

1. Differentiate between strategic and technical project evaluation.
2. Describe the purpose of effort estimation in software project management.
3. Summarize the key features of the COCOMO model.
4. Discuss the role of sequencing and scheduling in activity planning.
5. Explain the importance of understanding organizational behavior in team management.
6. Apply function point analysis to assess a software module's complexity.
7. Use precedence network conventions to draw an activity network.
8. Identify and rank the major risks in a cloud-based e-commerce project.
9. Analyze why poor cost-benefit analysis can lead to project failure.
10. Compare earned value analysis with traditional cost monitoring techniques.

**PART – B ( 8 x 8 = 64 marks)**

**(Answer any 8 questions)**

11. Develop a stepwise project planning model for a sample mobile banking application.
12. Perform a complete cost-benefit analysis for a web-based inventory management system.
13. Analyze the impact of inaccurate effort estimation on project schedule, cost, and resources.
14. Apply the COCOMO II model to estimate effort and duration for a given project.
15. Examine a sample project's activity plan and identify potential bottlenecks.
16. Apply PERT analysis to evaluate the uncertainty in project scheduling for a sample project.
17. Analyze the effectiveness of earned value analysis in tracking project performance.
18. Apply software metrics automation tools to assess quality and productivity in a sample project.

19. Develop a strategy to identify and mitigate high-impact risks in a distributed software project.
20. Analyze the influence of team dynamics and leadership on project success in agile teams.
21. Apply project monitoring visualization techniques to track progress in a real-time application development.
22. Apply function point analysis (FPA) to a sample e-commerce application and compute its unadjusted function points by identifying inputs, outputs, user interactions, files, and interfaces.

**PART – C ( 2 x 8 = 16marks)- Answer all**

23. Analyze the trade-offs between using the Function Point method and COCOMO II for estimating project effort and cost.
24. Analyze how different project scheduling techniques (CPM, PERT) impact the efficiency of software project execution.