



Paper ID : 260840

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Subject Code : BOE068

Roll No: _____

BTECH
(SEM. VI) THEORY EXAMINATION 2025-26
SOFTWARE PROJECT MANAGEMENT

TIME: 3 HRS**M.MARKS: 70**

Note: 1. Attempt all Sections. If require any missing data: then choose suitably.

SECTION A

1. Attempt all questions in brief.

2x7 = 14

(a)	Identify two limitations of traditional cost-benefit evaluation in software projects.	CO-1	K3
(b)	Why is estimation accuracy important in project planning?	CO-2	K2
(c)	What is the difference between risk avoidance and risk mitigation?	CO-3	K2
(d)	State two common sources of project risks.	CO-3	K1
(e)	What is meant by project tracking?	CO-4	K1
(f)	Define Earned Value in project management.	CO-4	K1
(g)	What is job enrichment?	CO-5	K1

SECTION B

2. Attempt any three of the following:

7 x 3 = 21

(a)	Evaluate the importance of software project management in modern IT environments. Support your answer by discussing its impact on cost, time, quality, and resource optimization.	CO-1	K4
(b)	Explain the concept of software process models. How does the selection of a suitable model affect project success?	CO-2	K3
(c)	Describe the PERT technique. Given three-time estimates (optimistic= 8 days, most likely=16 days, pessimistic= 32 days), calculate expected time and analyze project uncertainty	CO-3	K4
(d)	Explain the concept of contract management in software projects. What challenges arise in managing contracts and how can they be resolved?	CO-4	K4
(e)	Discuss the Hackman–Oldham job characteristic model. How does it help in improving employee motivation and performance?	CO-5	K4

SECTION C

3. Attempt any one part of the following:

7 x 1 = 7

(a)	Discuss various methodologies used in software project planning. Compare their suitability for dynamic and large-scale projects with proper justification.	CO-1	K4
(b)	Explain project portfolio management in the context of multiple ongoing projects in an organization. Design a strategy to prioritize projects when resources are limited.	CO-1	K4

4. Attempt any one part of the following:

7 x 1 = 7

(a)	Compare COSMIC Full Function Points and COCOMO II as estimation techniques. Evaluate their suitability for large-scale enterprise systems with proper justification.	CO-2	K4
(b)	Explain Agile methodology. Discuss its advantages and limitations in software project development with suitable examples.	CO-2	K3

5. Attempt any one part of the following:

7 x 1 = 7

(a)	Explain Monte Carlo simulation in project risk analysis. How does it help in predicting project completion time under uncertainty?	CO-3	K4
(b)	Discuss the importance of activity planning and scheduling in project management. How does improper scheduling lead to project failure?	CO-3	K4

6. Attempt any one part of the following:

7 x 1 = 7

(a)	Discuss various techniques used for project monitoring and control. How does data visualization improve decision-making?	CO-4	K4
(b)	Explain cost variance in project management. Calculate the cost variance and cost variance percentage for a project where: • Earned Value (EV) = ₹50,000 * Actual Cost (AC) = ₹60,000 Interpret the result.	CO-4	K3

7. Attempt any one part of the following:

7 x 1 = 7

(a)	Discuss ethical and professional issues in software project management. How can organizations ensure ethical practices?	CO-5	K4
(b)	Explain the role of managing people in software projects. How does effective people management contribute to project success?	CO-5	K3