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BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – B.Tech.(CSE)-AIML-2021/B.Tech.(CSE)-DS-2021/B.Tech.(CSE)-AIML-2022/B.Tech.(CSE)-DS-2022/B.Tech.(CSE)-AIML-2023/B.Tech.(CSE)-DS-2023/B.Tech.(CSE)-2023

Course Name – Software Project Management

Course Code - OEC-CSM601A/OEC-CSD601A/OEC-CSG601A

(Semester VI)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Identify among the following methods the commonly used one for collecting data during software project management.
 - a) Guesswork
 - b) Surveying stakeholders
 - c) Ignoring data collection
 - d) Random sampling
- (ii) Identify the primary purpose of collecting data in software project management.
 - a) To increase project costs
 - b) To complicate decision-making
 - c) To inform project planning and decision-making
 - d) To delay project completion
- (iii) Select which of the following is NOT a common source of data in software project management?
 - a) Stakeholder feedback
 - b) Historical project data
 - c) Random internet searches
 - d) Performance metrics
- (iv) Select the significance of using data-driven approaches in software project management.
 - a) It reduces the need for stakeholder involvement
 - b) It increases project risks
 - c) It improves decision-making accuracy and project outcomes
 - d) It slows down the project timeline
- (v) Choose the purpose of project evaluation.
 - a) To initiate a project
 - b) To monitor project progress
 - c) To assess project outcomes and performance
 - d) To close a project
- (vi) Identify the aspect of contract management involves reviewing and approving changes to the terms and conditions of the contract.
 - a) Contract negotiation
 - b) Contract monitoring

- c) Contract closure d) Contract modification
- (vii) Choose, which technique is commonly used to estimate project duration by considering optimistic, pessimistic, and most likely time estimates for each activity?
- a) Critical Path Method (CPM) b) PERT (Program Evaluation and Review Technique)
- c) Monte Carlo Simulation d) Earned Value Management (EVM)
- (viii) Choose: Simulation models can be used to obtain operating characteristic estimates in less time than with the real system using a feature of simulation called:
- a) Microseconds b) Warp speed
- c) Time compression d) None of these
- (ix) Select the following statistical methods are commonly used to analyze simulation results.
- a) Regression analysis b) t-tests
- c) Analysis of variance d) All of the above
- (x) Choose the following are parameters involved in computing the total cost of software development project.
- a) Travel and training costs b) Hardware and Software costs
- c) Effort costs d) all of the above
- (xi) Identify the key benefit of understanding Organizational Behavior in Software Project Management
- a) Higher budget allocation b) Increased project scope
- c) Improved team collaboration and performance d) Faster software development lifecycle
- (xii) Select the aspect of Organizational Behavior is particularly relevant to managing software projects
- a) Individual motivation b) Economic theories
- c) Political structures d) Historical perspectives
- (xiii) Select the role of personality tests in staff selection for software project management?
- a) Assessing technical skills b) Evaluating communication abilities
- c) Understanding candidates' work preferences and behavior d) Identifying project management experience
- (xiv) Match the role of a burndown chart in project tracking.
- a) Identifying project risks b) Tracking team member attendance
- c) Monitoring project progress over time d) Assessing code quality
- (xv) Observe the significance of a force majeure clause in a contract.
- a) It defines the payment schedule b) It outlines the penalties for non-compliance
- c) It addresses unforeseen events or circumstances beyond control d) It specifies the intellectual property rights

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Group-B

(Short Answer Type Questions)

3 x 5=15

2. Describe Dynamic System Development Method In Software Project Management. (3)
 3. List the core principles in Dynamic System development method. (3)
 4. Explain the three estimates in PERT chart method. (3)
 5. Summarize the role of stakeholders in project planning. (3)
 6. Explain Software Configuration Management. (3)
- OR**
- Analyse the importance of managing contracts. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain cost-benefit analysis considering risk.. (5)
8. Describe with an example of a situation where prioritizing monitoring could prevent project delays? (5)
9. **Compute the Critical path for the following projects activities:** (5)

Activity	Precedence	Duration(Days)
A	-	3
B	A	4
C	A	5
D	A	4
E	B	2
F	D	9
G	C,E	6
H	F,G	2

10. Considering the long-term sustainability of software projects, how do organizational structures impact knowledge management and organizational learning, and what strategies can organizations employ to leverage knowledge assets effectively? (5)
11. Explain Rapid Application Development model. (5)
12. Explain how do hybrid organizational structures integrate elements of different structural models in software project management, and what benefits do they offer in terms of project adaptability and performance? (5)

OR

Explain what role does organizational culture play in shaping the effectiveness of software project management structures, and how can organizations cultivate a culture conducive to project success? (5)
