



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

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

Course Name – Software Project Management

Course Code - OEC-CSM601A/OEC-CSD601A

(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) 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 |
- (iii) Name the primary purpose of project tracking in software project management.
- | | |
|--------------------------------|---------------------------------------|
| a) Remembering project tasks | b) Understanding project requirements |
| c) Monitoring project progress | d) Planning project timelines |
- (iv) Identify the Critical Path in the context of the Critical Path Method (CPM)?
- | | |
|--------------------------------|---------------------------------|
| a) Longest path in the network | b) Shortest path in the network |
| c) Path with maximum resources | d) Path with minimum duration |
- (v) 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 |
- (vi) 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 |
- (vii) Select the aspect of Organizational Behavior is particularly relevant to managing software projects?

- a) Individual motivation
c) Political structures
- b) Economic theories
d) Historical perspectives
- (viii) Select the activity in Software Project Management involves breaking down the project into smaller, manageable tasks
- a) Requirement gathering and analysis
c) Work breakdown structure (WBS).
- b) Resource allocation and scheduling
d) Quality assurance planning
- (ix) Define the following is an example of an Agile methodology used in Software Project Management
- a) Waterfall
c) PRINCE2
- b) Scrum
d) Six Sigma
- (x) Identify the risk evaluation technique involves assigning a numerical value to the likelihood and impact of each identified risk
- a) Risk matrix
c) Monte Carlo simulation
- b) Delphi technique
d) Risk scoring
- (xi) Identify a tool for project cost estimation.
- a) Bottom-up estimation
c) Budget report
- b) Top-down estimation
d) Project charter
- (xii) Choose an example of a parametric estimation model.
- a) COCOMO II
c) SWOT analysis
- b) PERT
d) Gantt chart
- (xiii) Predict a key feature of a parametric productivity model.
- a) Scalability
c) Risk management
- b) Cost estimation
d) Resource allocation
- (xiv) Select the following factors contributes to creating a positive work environment
- a) Micromanagement
c) Trust, respect, and collaboration
- b) Lack of communication
d) Limited opportunities for career advancement
- (xv) Predict the primary goal of software process models
- a) Decrease efficiency
c) Standardize development
- b) Increase uncertainty
d) Improve productivity

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Differentiate Rapid Application Development (RAD) from traditional waterfall model. (3)
3. Determine Hammock activities? (3)
4. Describe the key factors in Decision Making. (3)
5. Describe the prototype. (3)
6. Explain how can project managers effectively communicate with their teams? (3)

OR

- Explain the role does leadership play in software project management, and how can it be cultivated? (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Simulate Backward Pass in Critical Path In Project management ? (5)
8. Describe the SPM's phased project planning process. (5)
9. Describe that the cost monitoring contributes to overall project success. (5)
10. Explain the fundamental role of organizational structures in software project management, and how do they influence project outcomes? (5)

11. Assess the importance of Earned Value Analysis (EVA) in contributing to effective project cost monitoring? (5)
12. Evaluate: Shirley Hopkins is developing a program in leadership training for middle-level managers. Shirley has listed a number of activities that must be completed before a training program of this nature can be conducted. The activities, immediate predecessors, and times appear in the accompanying table. (5)

Activity	Immediate Predecessor	time
A	-	2
B	-	5
C	-	1
D	B	10
E	A,D	3
F	C	6
G	E,F	8

1. Design AOA diagram for these precedencies.
2. Develop the critical path
3. Write the total project completion date.
4. Solve the slack time for each individual activity.

OR

Summarize Forward Pass & Backward Pass techniques? (5)
