



45363

**BRAINWARE UNIVERSITY****Term End Examination 2025-2026****Programme – MCA-2025****Course Name – Software Project Management****Course Code - MCA20408A****(Semester II)**

Library
Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

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) What is defined as a structured set of activities required to develop a software system?
 - a) Software Process
 - b) Software Product
 - c) Software Hardware
 - d) Software Budget
- (ii) What term is used for the process of adjusting a generic software process to the needs of a specific project?
 - a) Process Discipline
 - b) Process Tailoring
 - c) Process Analysis
 - d) Process Deployment
- (iii) Which model is the oldest and most widely used paradigm for software engineering?
 - a) Incremental Model
 - b) Spiral Model
 - c) Waterfall Model
 - d) RAD Model
- (iv) Which model is primarily characterized by its 'Risk Analysis' phase?
 - a) Spiral Model
 - b) Waterfall Model
 - c) Prototyping Model
 - d) RAD Model
- (v) What does RAD stand for in software development?
 - a) Relative Application Design
 - b) Rapid Application Development
 - c) Resource Allocation Department
 - d) Robust Agile Deployment
- (vi) Which model delivers software in small, usable portions known as increments?
 - a) Waterfall Model
 - b) Incremental Model
 - c) Component Assembly Model
 - d) RAD Model
- (vii) In which model is a simplified version of the software built to help users define requirements?
 - a) Waterfall Model
 - b) Prototyping Model
 - c) Spiral Model
 - d) Incremental Model
- (viii) What is the primary goal of 'improving process discipline'?
 - a) Increasing hardware requirements
 - b) Consistency and predictability in output
 - c) Eliminating the testing phase
 - d) Reducing the number of developers

- (ix) Which model focuses on reusing existing software components to build a system?
- Component Assembly Model
 - Waterfall Model
 - Prototyping Model
 - RAD Model
- (x) What term refers to the entire period from the initial conception of a software product until it is no longer available for use?
- Software Release
 - Software Life Cycle
 - Software Versioning
 - Software Maintenance
- (xi) A project manager suggests replacing all SQA activities with a final System Test. Critique this decision based on SQA principles.
- It is a good decision that saves time and resources without impacting quality.
 - It is flawed because SQA is about process-wide defect prevention, not just end-of-line defect detection.
 - It is correct because testing and SQA are the same thing.
 - It is only acceptable if the project uses the Waterfall model.
- (xii) Evaluate the role of the "Producer" during an FTR. Should they lead the discussion to defend their work?
- Yes, because they know the code best and can explain away all errors.
 - No, the Producer should remain passive to allow for objective evaluation and avoid defensive barriers.
 - Yes, the Producer is the only one who should speak during an FTR.
 - No, the Producer should not be allowed to attend the meeting at all.
- (xiii) How would you justify the high initial cost of implementing a Cleanroom Methodology to a skeptical stakeholder?
- By promising that no testing will ever be needed again.
 - By demonstrating that the reduction in rework and high-reliability gains lead to lower total lifecycle costs.
 - By explaining that it is the most popular trend in the industry.
 - By showing that it requires fewer developers than traditional methods.
- (xiv) Which criterion is most critical when evaluating the success of a Software Quality Assurance Plan (SQAP)?
- The total number of pages in the SQAP document.
 - The measurable reduction in post-release defects and adherence to the defined quality process.
 - The speed at which the developers finished the project.
 - The amount of money spent on automated testing tools.
- (xv) When evaluating a Data Dictionary for "Quality," what is the most important judgment factor?
- The aesthetic layout of the document.
 - The precision, completeness, and lack of ambiguity in the definitions of every data element.
 - Whether it was written in Structured English.
 - The number of images included in the dictionary.

Group-B

(Short Answer Type Questions)

3 x 5=15

- What is meant by "process tailoring" in software development? (3)
- Which software process model is characterized by a strictly linear and sequential flow of phases? (3)
- What is the primary focus of the "spiral model" in the software life cycle? (3)
- Analyze how a delay in a non-critical activity might eventually impact the overall project duration. (3)
- Compare the impact of a "project-based" vs. a "functional" organization on team communication. (3)

OR

What is the likely structural result of relying solely on Top-Down planning for a highly innovative technical project? (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Define the Waterfall Model and list its primary sequential phases in the software life cycle. (5)
8. What are the primary characteristics of the Spiral Model, and how does it structure its iterations? (5)
9. Analyze the relationship between regular Tracking Meetings and the initiation of a Recovery Plan. At what point does a variance trigger the transition? (5)
10. Compare the analytical effectiveness of 'Questionnaires' versus 'Joint Application Design (JAD)' sessions in identifying hidden customer requirements. (5)
11. Analyze why the 'Initial Investigation' phase is critical to the success of defining 'Product Objectives.' What happens if this phase is bypassed? (5)
12. Differentiate between 'Schedule Work' meetings and 'Escalation Meetings' in terms of their organizational impact and decision-making power. (5)

OR

Evaluate the 'Observation' strategy for determining information requirements. In which technical environments does it yield the most valuable analysis? (5)

Library

Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125