

B.Sc. Sem.-6 Examination

CC-307

Computer Science

April-2025

Time : 2-30 Hours]

[Max. Marks : 70

Q:1 Write following**[14]**

[a] Explain different programming practices (Structured, Event-driven, Object-oriented) with their advantages and use cases.

[b] Discuss the importance of coding style and best practices in software development.

OR

[a] Describe different methods of code verification, including code reading, static analysis, inspection, and reviews.

[b] Explain unit testing, its role in software development, and its impact on software quality.

Q:2 Write following**[14]**

[a] Explain white-box testing techniques, including basis path testing, control flow testing, and data flow testing.

[b] Explain the difference between errors, faults, failures, and defects in software testing with examples.

OR

[a] Compare and contrast verification and validation in software testing, highlighting their significance.

[b] Discuss black-box testing techniques, including equivalence partitioning and boundary value analysis, with examples.

Q: 3 Write following**[14]**

[a] Explain different cost estimation models, including LOC-based estimation, FP-based estimation, and COCOMO models.

[b] Discuss different roles in a software project team and how team structures impact project success.

OR

(P.T.C)

E104-2

- [a] Define risk management in software projects and explain its significance.
- [b] Discuss different risk management strategies and their application in software projects.

Q: 4 Write following [14]

- [a] Explain the process of risk identification, assessment, mitigation, monitoring, and control in software development.
- [b] Describe key software project management activities and their role in successful project execution.

OR

- [a] How is risk identification and assessment performed? Provide examples.
- [b] What is risk mitigation? How is risk monitored and controlled throughout the project lifecycle?

Q:5 Attempt any SEVEN [14]

- 1 LOC – _____
 - 2 FP – _____
 - 3 COCOMO – _____
 - 4 OOP – _____
 - 5 BVA – _____
 - 6 V&V – _____
 - 7 SPM – _____
 - 8 _____ programming responds to user or system-generated events.
 - 9 In code inspection, the primary goal is to detect _____ and improve quality.
 - 10 The purpose of _____ testing is to verify the internal logic of the code.
 - 11 A _____ is a set of input values, execution conditions, and expected results.
 - 12 Risk mitigation aims to reduce the _____ of a risk occurring.
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