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Question Paper Code : 60836

M.C.A. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2023.

First Semester

MC 4102 — OBJECT ORIENTED SOFTWARE ENGINEERING

(Regulations 2021)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List down the various stages of SDLC.

2. Highlight the limitations of Rapid application development.

3. Describe any two functional requirements (Non functioned)

4. What is HOOD?

5. State any four principles of GRASP.

6. Discuss about the behavioural design pattern.

7. What is Alpha Testing and Beta Testing?

8. Highlight four types of software maintenance.

9. List down the levels of CMM model.

10. Distinguish "Version" with `Release" in Software development.

PART B — (5 × 13 = 65 marks)

11. (a) Explain why incremental development is the most effective approach for developing business software systems. Why is this model less appropriate for realtime systems engineering?

Or

(b) Compare different life cycle model in terms of time and robustness.

12. (a) Draw a use case diagram and wite down use case specifications for library management system.

Or

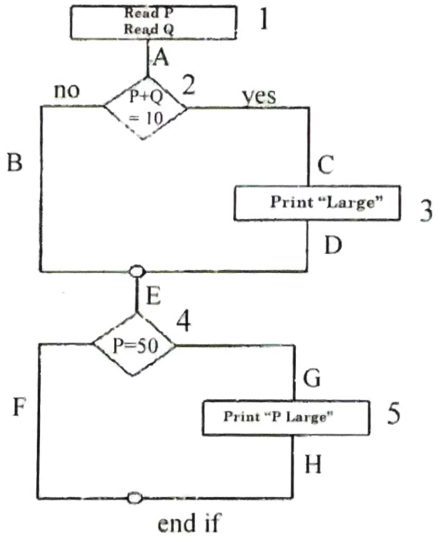
(b) Explain in detail about non-functional requirements with examples.

13. (a) Explain in detail about design patterns.

Or

(b) Compare and contrast static object modelling and dynamic object modelling.

14. (a) What is flow graph notation? Use the following flow graph compute statement coverage, branch coverage and path coverage.



Or

(b) Explain different techniques involved in Black box testing.

15. (a) Explain use case points method and class point method with examples.

Or

(b) Apply any two software quality metrics for user registration module and explain.

PART C — (1 × 15 = 15 marks)

16. (a) Explain in detail about various testing techniques. Name the suitable testing techniques that can be applied for an e-commerce application.

Or

(b) Compare waterfall model with spiral model with examples and neat diagrams.