Reg. No. : 8 1 0 0 2 1 6 2 2 0 1 9

Question Paper Code : 12204

M.C.A. DEGREE EXAMINATIONS, JANUARY 2022.

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. Outline the need for software engineering.

2. What is software design?

3. Outline the OOA process.

4. What is a software requirements specification document?

5. Write a note on design patterns.

6. What is GoF design pattern?

7. Define software testing.

8. Differentiate white box and black box testing.

9. What is the need for OO software estimation?

10. Define software quality.

PART B — (5 × 13 = 65 marks)

11. (a) What is a prototype? Explain the different phases of the prototyping model.

Or

(b) Explain Agile model with its pros and cons.

12. (a) Present an elaborate note on Object Modeling Technique.

Or

(b) Outline a Sequence diagram and a Collaboration diagram with an example.

13. (a) Explain the different patterns and principles used in GRASP.

Or

(b) Outline static object modeling and dynamic object modeling with an example.

14. (a) Elaborate the features of static and dynamic testing tools.

Or

(b) Elaborate software maintenance with an example.

15. (a) Explain the Use-Case Points software estimation technique with an example.

Or

(b) Name the metrics which are most essential in software quality measurement and explain them.

PART C — (1 × 15 = 15 marks)

16. (a) Prepare a software requirements specification document for a "Library Management System".

Or

(b) Model a use case diagram for a "Banking system". State the functional requirements you are considering.

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