Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 90244

M.C.A. DEGREE EXAMINATIONS, APRIL/MAY 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. For what types of projects the waterfall life cycle model can be used?

2. Present an outline of iterative development.

3. What is an object? How state of an object is represented?

4. Outline why use cases are used to describe requirements.

5. What are design patterns?

6. Outline the elements of a sequence diagram.

7. What is a test case?

8. Define Regression testing.

9. What is software quality?

10. Outline the difference between size related measures and function related measures.

PART B — (5 × 13 = 65 marks)

11. (a) What is software development life cycle? Outline the spiral life cycle model with a diagram. (13)

Or

(b) Outline the verification activities pertaining to each phase of the software development life cycle. (13)

12. (a) What is a software requirements specification (SRS) document? Outline the general structure of a SRS document. (13)

Or

(b) Model a use case diagram for an Automated Teller Machine (ATM) application that enables customers of banks to perform financial transactions. State the functional requirements you are considering. (13)

13. (a) Present an outline the of GoF patterns and relationships with a diagram. (13)

Or

(b) Outline the general responsibility assignment software patterns (GRASP) principles. (13)

14. (a) Explain the various levels of testing. (13)

Or

(b) What is software maintenance? Name and outline the types of software maintenance. (13)

15. (a) Name and outline the software quality attributes with respect to product operation, product transition and product revision. (13)

Or

(b) Outline the metrics that are used to characterize object oriented design and development. (13)

PART C — ($1 \times 15 = 15$ marks)

16. (a) The details of the project plan vary depending on the type of project and organization. List out and outline the details that will be contained in almost all plans. (15)

Or

(b) Model a state transition diagram for an Automated Teller Machine (ATM) application that enables customers of banks to perform financial transactions. State the functional requirements you are considering. (15)