END TERM EXAMINATION

SECOND SEMESTER [MCA] JULY 2023

Paper Code: MCA-104   **Subject: Object Oriented Software Engineering**

(BATCH 2020 ONWARDS)

Maximum Marks: 75

Time: 3 Hours

Note: Attempt five questions in all including question Q.No.1 which is compulsory. Select one question from each unit.

Q1 Attempt the following questions briefly: **(2.5x10=25)**

a) Distinguish between Generalization and Specialization.
b) Concept of reusability in OOSE.
c) Draw the use case diagram for ATM system.
d) Explain the term metadata.
e) 4+1 view architecture of UML.
f) Difference between domain class diagram and design class diagram with the help of an example.
g) State the purpose of drawing a deployment diagram in UML.
h) What is the best time to switch from the analysis model to design model?
i) Why do we require automatic tests?
j) How can we represent constraints in UML?

UNIT-I

Q2 a) Draw and explain the Rational Unified Process Model. **(6.5)**
b) Explain the statement "The requirement model is structured in the analysis model". **(6)**

Q3 a) Explain the statement with the help of diagrams "System development is model building ". **(6.5)**
b) State the comparison between Traditional Lifecycle model and Object-Oriented Life Cycle Model. **(6)**

UNIT-II

Q4 a) Explain Project Management and Inception Phase. **(6.5)**
b) Draw the activity diagram for library management system. **(6)**

Q5 Considering the Recycling Machine Case Study draw the following: **(12.5)**
i) Use case diagram.
ii) Requirement Model.
iii) Analysis Model.

UNIT-III

Q6 a) What is the purpose of having a construction phase in OO Life cycle model? Explain with the help of an example. **(6.5)**
b) Draw the state transition and component diagram for Online Ordering System. **(6)**

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(12.5)

Q7 Explain the following:
    a)   Use Case realization.
    b)   Reusable design patterns
    c)   Designing the data access layer

UNIT-IV

Q8.   a)   Explain in detail the various testing techniques.   (6.5)
     b)   What are the different levels of testing.   (6)

Q9 Write short notes on: (12.5)
    i)   Agile
    ii)   Scrum
    iii)   Lean

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