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ROLL No: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐ | Total number of pages:[1]

Total number of questions:06

MCA 5ᵗʰ Sem
Object Oriented Analysis and Design using UML
Subject Code: MCA-504
Paper ID :

Time allowed: 3 Hrs   Max Marks: 100

Important Instructions:

- **All questions are compulsory**

PART A (2×10)

Q.1   Short-Answer Questions: All COs
   (a) Define class and object in case of UML.
   (b) What is multiplicity and its types?
   (c) Explain Object Diagrams in UML?
   (d) What do you mean by events and states?
   (e) What is iterative SDLC?
   (f) What is ArgoUML?
   (g) Differentiate between black box and white box?
   (h) State the purpose of modeling in sequence diagram.
   (i) Compare static and dynamic model.
   (j) What is singleton design pattern.

PART B (16×5)

Q. 2.   What do you mean by Object Orientation? Explain Object Oriented Modeling in detail.   CO1

OR

What is UML and its need? Name basic building blocks of UML .Explain the object   CO1

architecture of UML.

Q. 3.   How a system is broken in subsystems during the system design process in object   CO2

oriented modeling?

OR

What is State Modeling? What do mean by event in State Diagram? Discuss various   CO2

types of Events?

Q. 4.   Explain class design. What are the steps of class design? Explain with an example ATM   CO3
using UML.

OR

Explain the phases of software development Life Cycle with their functionalities.   CO3

Q. 5.   Explain structured analysis and structured design approach in detail. Give its comparison   CO4
with OMT.

OR

What is the purpose of Use Case Diagram? How to draw use case diagram? Explain with   CO4

example.

Q. 6.   What is Activity Diagram? How it is different from Interaction diagram? Discuss in

detail.   CO5

OR

What do you mean by functional model of a system? Explain in detail.   CO5