

MCA (Revised)

Term-End Examination

June, 2017

04821

MCS-032 : OBJECT ORIENTED ANALYSIS AND DESIGN

Time : 3 hours

Maximum Marks : 100

Note : *Question no. 1 is compulsory. Attempt any three questions from the rest.*

1. (a) What are the benefits of Object Oriented Methodology in real life applications ? Briefly explain each element of the state diagram with respect to dynamic modeling. 10
- (b) What is concurrency ? Explain how concurrency is identified in a system. How will you manage concurrency in an "Online Railway Reservation System" ? Explain with the help of a diagram. 10
- (c) Draw the state chart diagram for an "Online Banking System". Also explain the states in this diagram. 10
- (d) Draw the class diagram for an "Online Examination System". Make necessary assumptions. 10

2. Differentiate between the following with examples : 4×5=20
- (a) Specialization and Generalization
 - (b) Package and Subsystem
 - (c) SAD and OOAD
 - (d) Relational Database and Object Oriented Database
3. (a) Draw DFDs (level 0 and level 1) for a "Library Information System". 10
- (b) What are the different types of models used in the case of Object Oriented Modeling ? Explain briefly. 10
4. (a) Explain the process of storing persistent data in object oriented systems. Also explain the use of object identities in this context. 10
- (b) How is a one-to-many association different from a one-to-one association ? Explain how associations are implemented as classes, with the help of an example. 10
5. (a) How are the events happening between objects controlled ? Explain with the help of an example. 10
- (b) Draw a sequence diagram for sending an e-mail. 10
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