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MCS-219

**MASTER OF COMPUTER
APPLICATIONS (MCA)**

(New)

Term-End Examination

December, 2021

**MCS-219 : OBJECT ORIENTED ANALYSIS
AND DESIGN**

Time : 3 Hours

Maximum Marks : 100

Note : Question No. 1 is compulsory and carries 40 marks. Attempt any **three** questions from the rest.

1. (a) What is object oriented analysis and design ? Explain its advantages. 10
- (b) What is Association ? What are the different types of association ? Explain with the help of an example of each. 10
- (c) What is Object Model ? Explain the use of object model in “software system development” with the help of an example. 10

10

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- (d) What is activity diagram ? Explain its purpose with the help of an example. 10

2. (a) What is DFD ? Briefly explain the symbols used in DFD. Draw DFD upto level 1 for “Online Library System”. Make necessary assumptions. 12

- (b) Explain the concepts of abstraction and encapsulation with the help of an example for each. 8

3. (a) What is use case diagram ? Draw use case diagram for ATM cash withdrawal process. 10

- (b) An online library system provides facility for online membership on payment of subscription fee. This system provides facility of access and downloading the books and research articles. Draw class diagram for this system. Make necessary assumptions. 10

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4. (a) Explain mapping of ternary associations to database tables with the help of an example. 10
- (b) Explain dynamic modeling with the help of an example and a suitable diagram. 10
5. Write short notes on the following : 4×5=20
 - (a) Object ID and its advantages
 - (b) Collaboration diagram
 - (c) Design optimization
 - (d) Features of a good object design