

Roll No. Total Pages : 2

DMCA/M-15

10326

**OBJECT ORIENTED ANALYSIS AND DESIGN
USING UML & C++**

Paper-CS-DE-22

Time Allowed : 3 Hours] [Maximum Marks : 80

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Give short notes on the following : 8×2=16
 - (a) Class
 - (b) Derived Data
 - (c) Actors
 - (d) Trade of priorities in System modeling
 - (e) Function overloading
 - (f) Formatted I/O in C++
 - (g) Abstract classes
 - (h) Virtual functions.

UNIT-I

2. What is the history of UML? Explain different views in UML. 16

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3. What do you mean by Association? Explain N-ary associations in UML? 16

UNIT-II

4. What are use Case models? Explain the concept of Actors and use cases by taking a suitable example. 16

5. Explain the following : 16

- (a) Swim lanes
- (b) Signal Generalization.

UNIT-III

6. Explain the following in C++ with suitable example: 16

- (a) In line functions
- (b) Static data members.

7. What is a Friend function? What is its need? How operator overloading is implemented with friend functions? Explain. 16

UNIT-IV

8. What is Inheritance? Explain the role of constructor and de-structor in inheritance in C++ with suitable example. 16

9. What are Templates? Explain template classes and template functions in C++ with suitable example. 16