

Roll No.

Total Pages : 03

BT-7/M-20

37149

**OBJECT ORIENTED SOFTWARE
ENGINEERING
CSE-415N (Opt. ii)**

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Section.

Section I

1. (a) Explain the role of Object containment and Object Persistence to identify Objects and Classes. Also explain different types of Persistence. **8**
- (b) Differentiate between Aggregation and Association with suitable example. **7**
2. (a) Explain various ways by which the lifetime of an object can be extended. **8**
- (b) What do you mean by Meta Classes ? Discuss Class hierarchy. **7**

Section II

3. (a) What do you mean by Patterns ? Describe Analysis and Design Patterns. **8**
- (b) Why are model constraints and stereotypes used in UML ? Explain various building blocks of UML. **7**
4. (a) What are generic components of Object-oriented design model ? Compare Jacobson and Booch methodology. **8**
- (b) Explain various Object Modelling techniques used in Rumbaugh Methodology. **7**

Section III

5. (a) Explain Use-case approach in analysis of Objects. **8**
- (b) What guidelines are used to identify a-part-of relationship ? How to eliminate unnecessary association ? **7**
6. (a) Explain different approaches to identify classes. **8**
- (b) Differentiate between class responsibilities and object responsibilities. **7**

Section IV

7. Elaborate different designing methods and protocols in Object-Oriented Designing Process. **15**
8. (a) Explain Design Axioms and Design Patterns in Object-oriented design process. **8**
(b) What is the relationship between Coupling and Cohesion. **7**