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 constaints 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**