

**DIPLOMA IN COMPUTER SCIENCE AND
ENGINEERING (BTCSVI)**

Term-End Examination

December, 2012

**BICS-035 : JAVA BASIC AND OBJECT MODELING
DESIGN**

Time : 2 hours

Maximum Marks : 70

Note : Attempt any five questions. Question No.1 is compulsory.

1. (a) Differentiate between data abstraction and data encapsulation. **7x2=14**
- (b) Explain the various levels of access protection in Java.
- (c) Distinguish between array list and vector.
- (d) Explain ambiguity resolution in inheritance
- (e) State T/F.
- Activity diagram is used for functional modeling.
- (f) Define meta data.
- (g) Explain object and class.

2. (a) Explain polymorphism and its types with diagram. **7x2=14**
- (b) Compare and contrast over loading and over riding.
3. Consider an example of hospital management system **3.5x4=14**
- (a) Draw class diagram and relationships in these classes.
- (b) Sequence diagram to fix an appointment.
- (c) Activity diagram to order medicine and pay bill.
- (d) State chart diagram of a room.
4. (a) Explain the conceptual model of UML. **7x2=14**
- (b) Explain object diagram with example.
5. (a) Explain the concept of object oriented paradigm. **7**
- (b) Define following **3.5x2=7**
- (i) copy constructor
- (ii) Interfaces in Java
6. Draw a state chart diagram for the working of an ATM Machine. **14**

7. Describe interaction diagram with example. What is the difference between sequence and collaboration diagram ? 14
8. Write short notes on following (*any 4*) 3.5x4=14
- (a) Inheritance and its types
 - (b) Dynamic modeling
 - (c) Component Diagram
 - (d) Aggregation vs. Association
 - (e) Levels of Use case
 - (f) Importance of Modelling
-