

00505

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

**Term-End Examination**

**June, 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) A class inherits its parent's : **2x7=14**
- (i) Attributes, links
  - (ii) Operation
  - (iii) Attributes, operations, relationships.
  - (iv) Operations, relationships, link
- (b) An actor in use case diagram is a
- (i) Process                      (ii) Users
  - (iii) Sub program              (iv) Comments.
- (c) In a class diagram, a class is denoted by :
- (i) Rectangle                      (ii) Circle
  - (iii) Ellipse                      (iv) Oval
- (d) OMT stands for :
- (i) Object Modeling Technology.
  - (ii) Object Method Technology.
  - (iii) Object Modeling Types.
  - (iv) None of the above

(e) \_\_\_\_\_ variable are the local variable that are accessed by the function in which the variable are declared.

- (i) Automatic            (ii) Static  
(iii) Instance            (iv) Class.

(f) A Deployment diagram shows all the nodes on the Network, their Interconnections and processor execution. (True/False)

(g) Functional modeling is represented with E-R Diagram. (True/False)

2. (a) What are the basic data types in Java ?  $7 \times 2 = 14$

(b) Explain the some basic Java libraries using suitable example.

3. (a) Write a program in Java to convert the given temperature in Fahrenheit in to Celsius  
( $C/5 = (F-32)/9$ )  $7 \times 2 = 14$

(b) What is the basic construct in Java to support the exception Handling.

4. (a) What is Multiplicity in Associations ? Give example to explain Multiplicity.  $7 \times 2 = 14$

(b) What is the difference between Generalization and Aggregation ?

5. (a) What is Object Modeling ? Explain the Basic concepts of object modeling Notations.

(b) Define UML. Explain major features of UML with their scope.  $7 \times 2 = 14$

6. (a) Explain Sequence and Collaboration diagram with suitable example.  $7 \times 2 = 14$
- (b) What are the difference between Dynamic and Functional Modeling ?
7. (a) Explain the use of constraints in functional model with example.  $7 \times 2 = 14$
- (b) Explain object diagram and Deployment diagram with example.
8. Write short notes of *any four* of the following :
- (a) Polymorphism.  $3.5 \times 4 = 14$
- (b) Inheritance.
- (c) Abstract classes.
- (d) Use case diagram.
- (e) State chart diagram.
- (f) Scope of UML
-