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BICS-035

DIPLOMA – VIEP – COMPUTER SCIENCE AND ENGINEERING (DCSVI)

00874

Term-End Examination

June, 2014

BICS-035 : JAVA BASIC AND OBJECT MODELING DESIGN

Time : 2 hours *Maximum Marks : 70*

Note : *Attempt any **five** questions. Question no. **1** is compulsory. Each question carries equal marks.*

1. (a) Identifiers are *7×2=14*

(i) User defined name

(ii) Reserved Key Words

(iii) Java statements

(iv) None of the above

(b) The constructor is always

(i) Private

(ii) Public

(iii) Protected

(iv) None of the above

(c) The super keyword always refers to the

(i) derived class

(ii) any base class

(iii) immediate base class

(iv) None of these

(d) OMT stands for

(i) Object Modeling Technology

(ii) Object Modeling Techniques

(iii) Object Modeling Types

(iv) None of the above

(e) A use case is an interaction between a user and a system. (True/False)

(f) Class diagram at conceptual level should include attributes. (True/False)

(g) Package diagrams are designed for reducing dependency. (True/False)

2. (a) Explain the basic data types in JAVA. 7

(b) What is JDK ? Explain the various tools of JDK. 7

3. (a) What is an object and a class ? Differentiate between Class method and Instance method. 7

(b) Write a program in JAVA to convert the given temperature in Celsius into Fahrenheit. $\left(\frac{C}{5} = \left(\frac{F-32}{9}\right)\right)$. 7

4. (a) Describe OMT methodology as a sequence of operations and draw a flow chart of it. 7

(b) Explain the following : 7

(i) Aggregation

(ii) Association

5. (a) What is the difference between Dynamic and Functional Modeling ? 7

(b) Define UML. Describe various UML diagrams and state purpose of each diagram in brief. 7

6. (a) Describe activity diagram with various terms and concepts. 7

(b) Draw a sequence diagram for placing a purchase order. 7

7. (a) Explain Interaction diagram and its classification with the help of a diagram. 7

(b) Explain Multiplicity concept of class diagram with example. 7

8. Write short notes on any ***four*** of the following : $4 \times 3\frac{1}{2} = 14$

(a) Abstract class

(b) Use case diagram

(c) Unified software development life cycle

(d) Error Handling

(e) Package in Java

(f) Polymorphism