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BICS-035

DIPLOMA – VIEP – COMPUTER SCIENCE AND ENGINEERING (DCSVI)

00696

Term-End Examination

December, 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**. All questions carry equal marks.*

1. (a) Define class and object. *7×2=14*

(b) Differentiate between public and non-public (default) access specifier.

(c) Explain OMG approval for UML.

(d) Discuss the types of inheritance.

(e) Describe the CRC card method.

(f) What is meant by Architectural meta model ?

(g) Distinguish between association and generalization.

2. (a) Explain the object-oriented programming paradigm in detail. Also explain how it is useful to build real world problems. 7

(b) Define Abstract class and Interface. What is the difference between them ? Explain. 7

3. (a) Enumerate the steps to model simple collaboration and its common modeling techniques. 7

(b) The cellular network must place the phone call correctly and also schedule the receiving and conference calls. Draw a class diagram. 7

4. (a) Define Package. What are the five stereotypes that UML applies to packages ? Explain. 7

(b) Describe the different levels of access protection available in Java. 7

5. (a) What are the merits of object-oriented development over traditional system development ? Explain briefly. 7

(b) Give an account of the evolution of UML from use-cases, OMT and Booch approach. 7

6. (a) Write a class diagram for a school information system. Specify clearly the relationships among classes, attributes and operations in each class. 7

(b) Enumerate the steps to model an executable release. Illustrate with a UML. 7

7. (a) Discuss the significance of use-case diagram for object-oriented analysis and design. Explain its common content, common uses and common modeling techniques in detail. 7

(b) Are abstraction and encapsulation tightly coupled in the sense that one concept cannot exist without the other? Illustratively justify your answer. 7

8. (a) Explain the classification of things with UML notation. 7

(b) Explain the extensibility mechanism in the UML. 7