| BICSE-005 |

DIPLOMA – VIEP – COMPUTER SCIENCE AND ENGINEERING (DCSVI)

Term-End Examination

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December, 2016

BICSE-005 : OBJECT MODELING AND DESIGN

Time : 2 hours *Maximum Marks : 70*

*Note : Answer any **seven** questions. All questions carry equal marks.*

1. What is the difference between Modeling language and Programing language ? Discuss the process of deriving programming language code structure from modeling language diagrams. Give suitable examples in support of your answer. *10*

2. What are Deployment diagrams ? Discuss the notations involved in drawing Deployment diagrams. How are Deployment diagrams useful in software development ? *10*

3. Discuss the phases of Software Development Life Cycle (SDLC). Draw a suitable diagram to show the interlinking of the phases of SDLC. *10*

4. Draw a use case diagram for a Railway Reservation System. You are required to perform the following tasks, before drawing the diagram :   *10*

    (a) State your problem in brief.

    (b) Identify modules and their workings.

    (c) Identify use cases and map them with modules.

    (d) Identify actors and associate them with use cases.

5. Describe the term 'Association' in a Class diagram. Briefly discuss the different types of associations involved in the development of class diagrams.   *10*

6. Briefly discuss any *two* of the following with the help of suitable diagrams and examples :   *10*

    (a) Interfaces

    (b) Packages

    (c) State Machines

7. What are the various models developed in UML ? List the diagrams drawn under each model. Give the notations involved in each diagram. Briefly discuss the usage of each diagram.   *10*

8. Discuss Activity diagrams and their usage. Draw an activity diagram for making a telephone call. *10*

9. Draw a Class diagram for client-server architecture. Discuss how the associations from a class diagram are implemented in any programming language. *10*

10. Write short notes on any *two* of the following : *2×5=10*

    (a) Object Model

    (b) Dynamic Model

    (c) Functional Model