DIPLOMA – VIEP – COMPUTER SCIENCE AND ENGINEERING (DCSVI)

Term-End Examination

ロロ356 June, 2016

BICSE-005 : OBJECT MODELING AND DESIGN

Time : 2 hours   *Maximum Marks : 70*

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

1. How is object oriented modeling technique different from structured modeling technique ? Can we map the components of structured modeling in object oriented modeling ? Justify your answer with suitable arguments.   *10*

2. What are use case diagrams ? Discuss the notations involved in drawing use case diagrams. Create a use case diagram for a Bank ATM system.   *10*

3   What do you understand by the term 'Prototyping' in the context of software development ? How does prototyping facilitate software development ? Do we have the concept of prototyping in waterfall model for software development ? Justify your answer.   *10*

4. Draw a use case diagram for airline ticket reservation. You are required to perform the following tasks, before drawing the diagram :   *10*

(a) State your problem in brief.

(b) Identify modules and their working.

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

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

5. Explain the term 'Association' in a class diagram. Justify that "Aggregation is a special form of Association". Give a suitable example in support of your justification.   *10*

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

(a) Class diagrams

(b) Interaction diagrams

(c) Component diagrams

7. What are the various models developed in UML ? Briefly discuss each model. Among the identified models, which model is most important ? Justify your answer with suitable arguments.   *10*

8. Discuss State chart diagram and its usage. Draw a state chart diagram for the game of chess. **10**

9. Draw a class diagram for the following situation :

"Various employees work for an organization; among the employees one is the manager."

Discuss how associations, involved in class diagram are implemented in any programming language. **10**

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

(a) Structural Modeling

(b) Behavioural Modeling

(c) Architectural Modeling

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