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B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

December, 2015

BICSE-002 : OBJECT ORIENTED DESIGN AND PROGRAMMING

Time : 3 hours   *Maximum Marks : 70*

*Note : Answer any **seven** questions. All questions carry equal marks. Assume suitable missing data, if any.*

1. (a) What are the important features of a good design ? List any five of them.   5

     (b) "A good design reduces the maintenance cost of the software." Discuss and justify your answer.   5

2. (a) Differentiate between data flow oriented design and object-oriented design, with suitable examples.   5

     (b) What do you understand by the term Metadata ? Why is it considered to be a useful concept ?   5

3. (a) What are the functions of a state diagram ? How are the state diagrams represented in various models ?   5

     (b) Briefly explain the three essential characteristics of an object.   5

4. What do you understand by architectural modelling ? Explain its various concepts with the help of suitable examples. *1*

5. (a) How do you implement constraints ? Explain.

   (b) Write the policies for detailed design dealing with temporal data.

6. (a) Define the term DBMS. Differentiate between DBMS and RDBMS.

   (b) Explain various approaches of designing a database.

7. (a) Write the procedure to evaluate the quality of a design model.

   (b) What is a dynamic model ? List its advantages and disadvantages.

8. (a) What do you mean by object model transformation ? Explain with the help of a suitable example.

   (b) What is Pseudocode ? Describe it with Object Navigation Notations.

9. Draw and explain the OMT object model for booking a rail ticket. *1*

10. Write short notes on any *two* of the following : *2×5=1*

    (a) Packages

    (b) ONN Construct

    (c) Generalization and Aggregation