

**B.Tech. - VIEP - COMPUTER SCIENCE AND
ENGINEERING (BTCSVI)**

Term-End Examination

June, 2016

00166

**BICSE-002 : OBJECT ORIENTED DESIGN AND
PROGRAMMING**

Time : 3 hours

Maximum Marks : 70

*Note : Answer any seven questions. Each question carries
equal marks. Assume suitable missing data, if any.*

1. (a) Define a class. Explain how classes can be designed. 5
- (b) What is object-oriented programming model ? Why do we prefer object-oriented approach over structured approach ? 5
2. (a) Define a 'Structure Chart' with the help of an example. 5
- (b) What do you understand by the term Metadata ? Explain with a suitable example. 5

3. (a) Define object-oriented analysis, object-oriented design and object-oriented programming. How are they related ? 6
- (b) Briefly explain the three essential characteristics of an object. 4
4. (a) What do you mean by process ? 3
- (b) Explain processes and their functions in functional modeling. 4
- (c) What is the function of data flow in handling process ? 3
5. (a) Define the term 'system architecture'. 3
- (b) What are the essential aspects of system architecture ? Describe with suitable examples. 7
6. (a) Define the term DBMS. Differentiate between DBMS and RDBMS. 5
- (b) What do you understand by using notations in software design ? 5
7. (a) Write the procedure to evaluate the quality of a Design Model. 5
- (b) What is a dynamic model ? List its advantages and disadvantages. 5

8. (a) What do you mean by object model transformation ? Explain with the help of a suitable example. 5
- (b) What is Pseudocode ? Describe it with object-navigation notations. 5
9. Draw and explain OMT object model for course registration system of a university. 10
10. Write short notes on any *two* of the following : $2 \times 5 = 10$
- (a) Packages
- (b) Generalization and Aggregation
- (c) Multiple Inheritance
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