BICSE-002

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

Term-End Examination

ロロ593

December, 2016

BICSE-002 : OBJECT ORIENTED DESIGN AND PROGRAMMING

Time : 3 hours   *Maximum Marks : 70*

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

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1. (a) What is the need of good design of a system ? What are the quality parameters affected positively by a good design ?   5

   (b) What is the meaning of an object ? How do objects interact with each other ? Explain with the help of an example.   5

2. (a) What is a class ? What are the different types of classes ? Explain with the help of an example on the basis of generalizations.   5

   (b) What is a package ? Define packages with the help of an example.   5

3. What is functional modelling ? Explain the different steps performed while constructing a functional model. *10*

4. (a) What is metadata ? Describe different applications of metadata. *5*

    (b) What is the use of object identity ? Describe the different types of object identities. *5*

5. (a) What is the meaning of Object Navigation Notations (ONN) ? Explain. *5*

    (b) Draw a class diagram for a Student Attendance Management System. *5*

6. (a) What is OODBMS ? Explain its features in brief. *7*

    (b) Describe in brief the different policies for detailed design dealing with temporal data. *3*

7. What is a dynamic model ? Draw a state chart diagram for an ATM system. *10*

8. (a) What is the meaning of temporal data ? How is it managed in a system ? *5*

    (b) What is pseudocode ? How can pseudocode be used to represent the object model of a system ? Describe briefly. *5*

9. Define the following terms in brief : 5×2=10

(a) State

(b) Aggregation

(c) Inheritance

(d) Behaviour

(e) Persistence

10. Write short notes on the following : $4 \times 2\frac{1}{2}=10$

(a) Link and Association

(b) Quality of Design

(c) Data Dictionary

(d) Metadata and Metamodels