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BICSE-002

00596

B.TECH. COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

June, 2013

BICSE-002 : OBJECT ORIENTED DESIGN AND PROGRAMMING

Time : 3 hours *Maximum Marks : 70*

Note : *Attempt **any seven** questions. Assume suitable missing data, if any.*

1. (a) "A good design reduces the maintenance cost of the software"- Justify the statement. 5

(b) Define the following terms : Data Dictionary, Metadata, Database, RDBMS, Events. 5

2. (a) Compare the data flow oriented design with object oriented design. 5

(b) What is the use of Notations in software design ? 5

3. (a) Explain Object Modelling Technique (OMT) by Rambaugh. 5

(b) What is the relation between Link and Association ? Explain with a suitable example. 5

4. (a) Differentiate between (with the help of suitable examples) : 5

(i) Functional model and Dynamic model

(ii) Generalization and Specialization

(b) Classify each of the relationships as either a class, an instance of a class, inheritance, aggregation, association or none exist. 5

(i) Bird - Fly

(ii) Student - Result

(iii) Air ticket Reservation Counter

(iv) Teacher - Student

(v) Course work in a Semester

5. (a) What is the use of object ID's ? Explain. 5

(b) Draw an object model to describe any undirected graph. 5

6. (a) Define concurrency. List important issues related to concurrency. 5

(b) "Modularity is the property of a system that has been decomposed into a set of cohesive and loosely coupled modules". Justify the statement. 5

7. (a) What is inheritance ? What is multiple Inheritance ? Using the concept of multiple inheritance create a class and capture the unique properties of another class using C++. 5

(b) Define the following terms : 5

(i) State

(ii) Behaviour

(iii) Identity

(iv) Visibility

(v) Synchronization.

8. (a) Explain - "Object Meta Model" with suitable example. 5

(b) Write the characteristics of object oriented programming languages. 5

9. (a) What do you mean by Object Model Transformation ? Discuss with the help of suitable example. 5

(b) What is Pseudocode ? Explain Pseudocode with object Navigation Notation. 5

10. Write short notes on *any two* of the following : 5x2=10

(a) Cardinality

(b) Packages

(c) System Design