

00743

**B.TECH. COMPUTER SCIENCE AND
ENGINEERING (BTCSEVI)**

Term-End Examination

December, 2012

BICSE-010 : DATA MODELLING AND UML

Time : 3 hours

Maximum Marks : 70

Note : Answer *any SEVEN* questions.

Assume suitable missing data, if any.

All questions carry equal marks.

-
-
1. (a) List the similarities and dissimilarities between structured analysis and object oriented requirements analysis techniques. 5
 - (b) Draw a class diagram for Hospital Management system. 5
 2. (a) Define UML. List any 5 diagrams which are supported by UML. 5
 - (b) What is the relationship between abstract classes and objects ? Explain. 5
 3. (a) "The class diagram shows the relationship amongst classes". Define 4 types of relationship in class diagram. 5
 - (b) Explain why it is important to use different notations to describe software design ? 5

4. (a) Can we have inheritance without polymorphism ? Explain. 5
(b) Explain the design guidelines that can be used to produce a good quality class. 5
5. (a) Explain Booch Methodology for object oriented development. 5
(b) "Use cases are better than the flow chart in understanding the user requirements"- why ? 5
6. (a) Draw a state chart diagram for dialing a telephone number. 5
(b) What is the purpose of dynamic modelling ? 5
7. (a) Define "Association class" with example. 5
(b) Explain "generalization relationships". 5
8. (a) Why object oriented modelling is necessary ? Explain. 5
(b) Define "Falsification and Prototyping". 5
9. (a) Draw a sequence diagram for Railway reservation system. 5
(b) Define "Solution Domain" in object oriented modelling approach. 5
10. Write short notes on *any two* : 5x2=10
(a) Events and Messages.
(b) Aggregation.
(c) The Function Model.