Name : ....

Roll No. : ....

Invigilator's Signature : ....

CS/M.TECH(CSE)/SEM-2/MCS-205A/2012

2012

OBJECT ORIENTED INFORMATION SYSTEM DESIGN

Time Allotted : 3 Hours   Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.
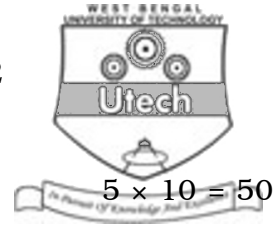
GROUP - A

1. Answer any *10* questions   2 × 10 = 20

    i)   What do you meant by "State" of an object ?

    ii)   What are models and meta models ?

    iii)   What are the limitations of Information System ?

    iv)   How Information System differes from Data processing.

    v)   Difference : 'uses', 'includes'.

    vi)   What is an interface ?

    vii)   What is "big picture" diagram of a system

    viii)   What is refactoring ?

    ix)   What is an acceptance test ?

    x)   Define maintainability and reusability ?

    xi)   What are Design patterns ?

    xii)   What is a framework ?

30342(M.TECH)   [Turn over

GROUP - B

Answer any 5 questions   5 × 10 = 50

2. The Unified software development process is said to be "iterative" and "incremental". — Provide your remarks. Describe the concepts of "iteration" and "increment" with examples.   4 + 6

3. What is an Abstract class ? Explain the utilization of abstract class with example. What is the importance of DFD and ERD ? How Information systems differ from Software systems ? 2 + 2 + 2 + 2 + 2

4. Distinguish between class diagrams and object diagrams. What is a package ? Draw the class diagram for a study center management system.   2 + 2 + 6

5. What are the major types of documentation ? How UML is important in this context ? Classify the UML diagrams as static or dynamic diagram types and explain your answer.

                                                        4 + 2 + 4

6. A student shall be modeled using a UML diagram. A student can be asleep or awake. A woken student can be at the college, at home, i.e. in his room, in the kitchen and in the bathroom. Which diagram type would you use to describe this ? Draw a diagram for this. Give the use case diagram for the library information system.   3 + 3 + 4

7. Compare Aggregation and Composition with a suitable example. Compare the sequence diagram with collaboration diagram with suitable example. 5 + 5

8. What are the purposes of Domain Analysis ? Why sould we create domain models ? Describe the different domain layers. 3 + 3 + 4

9. Write short notes on any *two* of the following : 5 + 5

    a) Jacobson methodology

    b) Booch methodology

    c) Object Oriented Testing

    d) Object Oriented Project Management.

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