

Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/MBA(OLD)/SEM-6 PT/SM-405/2011**

**2011**

**SYSTEM ANALYSIS AND DESIGN**

Time Allotted : 3 Hours

Full Marks : 70

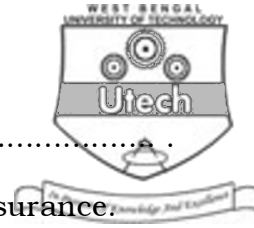
*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**GROUP – A**

**( Objective Type Questions )**

1. Choose the correct alternatives / fill in the blanks for the following : 10 × 1 = 10
  - i) Which stage is not covered by SDLC ?
    - a) Design
    - b) Coding
    - c) Testing
    - d) None of these.
  - ii) Which feature is not related to OO modelling ?
    - a) Inheritance
    - b) Polymorphism
    - c) Class
    - d) None of these.
  - iii) In context diagram there should be
    - a) one process
    - b) two processes
    - c) three processes
    - d) four processes.



- iv) RDBMS stands for .....
- v) System testing is a part of Quality Assurance.
  - a) True b) False.
- vi) SQL is a Database Language.
  - a) True b) False.
- vii) Software refers to physical device of a computer system.
  - a) True b) False.
- viii) Query Processor components include
  - a) DDL Interpreter
  - b) DML Compiler
  - c) Query evaluation engine
  - d) All of these.
- ix) Event flow diagram is known as Event Trace Diagram.
  - a) True b) False.
- x) UML stands for .....

**GROUP – B**

**( Short Answer Type Questions )**

Answer any *three* of the following.  $3 \times 5 = 15$

- 2. If Project A has twice as many resources as Project B, will Project A be twice as complex as Project B ? Justify.
- 3. Compare the characteristics, advantages and disadvantages of a Gantt chart to a PERT/CPM chart.



4. What is the critical path and why is it important to project managers ?
5. What is software change control and what are the four steps typically involved ?
6. a) What are objectives of supply chain management ?  
b) What is relation between E-Business & supply chain ?

3 + 2

**GROUP - C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

7. A module of an Employee Management System computes salary of the employees. Each employee can have status of worker, instructor or manager. Each of these is given fixed salary per week. However, if the employees work more than 40 hours per week, they are given fixed salary plus extra money per hour as per following rate.

Worker — Rs. 100

Manager — Rs. 200

Instructor — Rs. 150

In case of an employee works more than 80 hours in a week he has also given an additional allowance of Rs. 1000. Prepare the following to show the logic of the module :

- a) Decision tree
- b) Decision table
- c) Pseudocode.

3  $\times$  5



8. a) What is "Relational Database Model" ? 5
- b) Suppose you are designing a student database system for an university. Draw an Entity Relationship diagram for the system. The system includes student, teacher, course, exam. and grades. 10
9. a) What is SDLC ? Explain various phases of this cycle. 7
- b) Explain the strategies/techniques used for determining information requirements. 8
10. a) What is a system analyst ? Describe his roles and responsibilities. 7
- b) Compare and contrast waterfall model with prototyping model. 8
11. Write short notes on any *three* of the following : 3 × 5
- a) Steering committee
- b) Delphi method
- c) Parallel run
- d) Feasibility study
- e) UML.
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