



Name :

Roll No. :

Invigilator's Signature :

CS/MBA (OLD)/SEM-4FT & 6PT/SM-405/2010

2010

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

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : $10 \times 1 = 10$

i) Which is not a software life cycle model ?

- a) Waterfall model b) Spiral model
- c) Cocomo model d) Prototyping model.

ii) Waterfall model is not suitable for

- a) small project
- b) complex project
- c) accommodating project
- d) none of these.



- iii) A feasibility study means
 - a) partly computerized and partly manual
 - b) conceptual solution of the problem
 - c) assessment of the viability of the project
 - d) none of these.
- iv) SRS stands for
 - a) Software Requirement Specification
 - b) System Requirement Specification
 - c) System Rectification Standard
 - d) None of these.
- v) If requirement is frequently changing, which model is most suitable ?
 - a) Waterfall model
 - b) Prototyping model
 - c) RAD model
 - d) None of these.
- vi) Data Dictionary keeps details of the contents of
 - a) Data flows
 - b) Data stores
 - c) both of these
 - d) neither of the two.
- vii) A Zero Level DFD describes
 - a) overview of the processes, inputs and outputs
 - b) the faulty blown-up system design
 - c) that the system design cannot be split further
 - d) none of these.



viii) A software design description document only includes

- a) Data dictionary b) ER diagram
c) DRD d) all of these.

ix) Design specifications do not normally include

- a) Output requirement
b) Input and storage requirement
c) Control provision
d) Blueprint showing the layout of hardware.

x) Which of the following is not data collection ?

- a) On-site observation b) Program flowchart
c) Interviews d) Questionnaires.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. What is a System ? Discuss the basic components of a system.
3. Differentiate between System Analysis and System Design.
4. What is normalization ? Why is it necessary ? 2 + 3
5. What is a Meta Class ? List its advantages. 2 + 3
6. Distinguish between white box and black box testing.



GROUP – C

(Long Answer Type Questions)

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

7. a) What is System development life cycle ? Identify the six distinct stages in the system development life cycle.
b) Explain in detail “Feasibility Study”.
c) Write a short note on any *one* of the following :
i) System Requirement Analysis
ii) System evaluation. $5 + 5 + 5$
8. a) Differentiate between Logical DFD and Physical DFD. Explain with example.
b) Draw a context level and level-1 DFD for Library Information System. $8 + 7$
9. a) State the key concepts of object oriented approach.
b) Define UML and explain UML architecture. $10 + 5$
10. a) Explain the taxonomy of CASE tools.
b) Write a short note on System documentation.
c) Discuss the various states involved in selecting a Vendor. $5 + 5 + 5$
11. Write short notes on any *three* of the following : 3×5
a) Project selection
b) System testing
c) User interface design
d) Decision table
e) Spiral Model.
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