Name : ....

Roll No. : ....

Invigilator's Signature : ....

CS/M.TECH(IT)/SEM-1/PGIT-105A/2011-12

2011

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

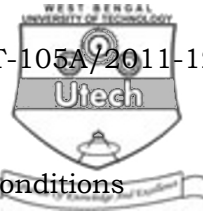*as far as practicable.*

GROUP – A
(Multiple Choice Type Questions)

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

     i)   System Study involves

          a)   study of an existing system

          b)   documenting the existing system

          c)   identifying the current deficiencies and establishing new goals

          d)   all of these

          e)   none of these.

     ii) The primary tool used in structured design is a

          a)   Structure Chart   b)   Data flow diagram

          c)   Program flowchart   d)   Module

          e)   none of these.

40137   [Turn over

iii) In a .... , one module of the new information system is activated at a time.

    a) System Development Life Cycle

    b) CASE Tool

    c) Phased Conversion

    d) Success factors

    e) none of these.

iv) A problem's .... will answer the question, "What information will the computer need to know in order to either print or display the output times ?"

    a) Input   b) Output

    c) Processing   d) Purpose

    e) None of these.

v) Documentation is prepared

    a) at every stage   b) at system design

    c) at system analysis   d) at system development

    e) none of these.

vi) During the maintenance phase

    a) system requirements are established

    b) system analysis is carried out

    c) programs are tested

    d) all of these

    e) none of these.

vii) To run the old system and the new system at the same time for a specified period, the system implementation approach used is

    a) Pilot   b) Phased

    c) Parallel   d) Direct

    e) none of these.

viii) Decision tree uses

    a)   pictorial depictation of alternative conditions

    b)   nodes & branches

    c)   consequences of various depicted alternates

    d)   all of these

    e)   none of these.

ix) An example of a hierarchical data structure is

    a)   Array   b)   Link list

    c)   Tree   d)   all of these

    e)   none of these.

x) The .... symbol is used in a flowchart to represent a step that gets information from the user.

    a)   Input / Output   b)   Process

    c)   Selection / Repetition d)   Start / Stop

    e)   None of these.

GROUP – B

(Short Answer Type Questions)

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

2. What is RUP ? What are its features ? State the development phases.

3. Who are System Analysts ? What is their role ?

4. Discuss about structured evolutionary prototyping model.

5. What are the good testing practices ?

6. What is process improvement cycle ?

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.   3 × 15 = 45

7. What do you understand by CMM ? What are its maturity levels ? What are the advantages & disadvantages of CMM ?

5 + 5 + 5

8. What do you understand by quality management ? What is environmental management ? How are they satisfying management concepts ? 5 + 5 + 5

9. What is Rapid application model ? What are its strength and weaknesses ? When can we use RAD model ?   4 + 4 + 4 + 3

10. What are the mechanisms for object oriented approach ? Discuss about UML with a suitable example. What is class modeling ? 5 + 5 + 5

11. What are the different levels of testing ? Why is Integration testing necessary ? State the differences of top down & bottom up integration testing. State the differences of White box & Black box testing.   3 + 4 + 4 + 4

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