2014

Information System Analysis & Design

Time Alloted : 3 Hours   *Full Marks : 70*

The figure 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 any *ten* of the following:

                                    10x1=10

   i)   RAD model was proposed by

        a) Lucent technology   b) IBM
        c) DEL corporation   d) None of these

   ii) Which is not s/w life cycle model?

        a) Waterfall model   b)Prototype model
        c)COCOMO model   d)Spiral model

   iii) SRS stands for

        a)Software Requirement Specification
        b) System Requirement Specification
        c) Software Retirement Specification
        d) None of these

   iv) Interview is a part of

        a) Design   b) Testing
        c) Implementation   d) All of these

v) Structure English is a

    a) Coding technique   b) Use for testing
    c) Design Tool   d) None of these

vi) Which of the following is a part of SDLC

    a) Requirement analysis   b) Program specification
    c) Branch making   d) all of these

vii) The system that does not interact with the external environment is

    a) closed system   b) open system
    c) logical system   d) None of these

viii) which of the following is not strategy for design

    a) Bottom up   b) Top down
    c) Embedded design   d) Hybrid design

ix) Testing the software basically

    a) Verification   b) validation
    c) both (a) & (b)   d) None of these

x) System testing is performed by

    a) End user   b)Programmer
    c) System analyst   d)All of these

xi) Documentation is performed by the following step

    a) commencing the study
    b) Every Step
    c) completion of design
    d) completion of implementation

xii) waterfall model is not suitable for

    a) complex project   b) small project
    c) Accommodating change   d) All of these

GROUP - B

(Short Answer Type Questions)
Answer any *three* of the following.   3x5=15

2. What is the difference between physical and logical DFD's?

3. What is an SRS? What role does an SRS play in the preliminary stages of system development?

[2+ 3]

4. What is Data Dictionary? What is the use of Data Dictionary?

[2+3]

5. What are software reliability and usability? Explain what do you mean by risk analysis?

[3+2]

6. What is Normalization? Why do we need it?

[2+3]

GROUP - C

(Long Answer Type Questions)
Answer any *three* of the following.   3x15=45

7. (a) What is a Spiral Model? State its advantages.

   (b) Define Cohesion and Coupling. What are the different types of cohesion and coupling?

[5+ 2+8]

8. (a) What are the differences between flow chart and structure chart?

   (b) What do you mean by Cost- Benefits Analysis?

   (c) Prepare the E-R Diagram for the following problem ———

   A university has several departments. Each department has many teachers and students. One of the teachers is head of the department. A teacher or student belongs to only one department. Each department offers several courses. Only one teacher teaches a course. Each course has examinations

(minimum one). Students register for different courses offered by the department to which he belongs. Student is given a grade in the courses he has registered.

[4+3+8]

9. (a) What do you mean by the term 'risk' in respect to software projects? What do you mean by risk containment?

(b) What are super key and candidate key?

(c) A marketing company wishes to construct a decision table to decide table to decide how to treat clients according to three characteristics: Gender, City Dweller and Age Group: A(under 30), .B(between 30 and 60), C(over 60). The company has four products (W, X, Y and Z) to test market. Product W will appeal to female, city dwellers. Product X will appeal to young females. Product Y will appeal to male middle aged shoppers who do not live in cities. Product Z will appeal to all but older females.

Make a decision table for taking the above decision.

[5+4+6]

10. Differentiate between ALPHA & BETA testing. What is data dictionary? Write the stages of SDLC and describe it fully. What are open and close systems?

3+4+6+2