

CS/BCA(H)/Even/2nd Sem/BCA-202/2014

**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**

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[ Turn over ]

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- 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

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**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

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(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**