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Paper Code : BCA-202
INFORMATION 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 *any ten* of the following: 1×10=10

   (i) The two basic driving factors of software are _____ and _____.
   - (a) flowcharting, coding
   - (b) quality, cost
   - (c) algorithms, programs
   - (d) quality, quantity

   (ii) Cost benefit analysis
   - (a) compares the cost with the benefits of introducing a computer based systems.
   - (b) estimates hardware and software costs.
   - (c) evaluates the tangible and intangible factors.
   - (d) All of the above

   (iii) CASE tools means
   - (a) Computer Aided System Engineering
   - (b) Corporate Aided Symbolic Engineering
   - (c) Computer Aided Software Engineering
   - (d) Corporate Automated System Engineering

   (iv) A state diagram
   - (a) does not have a node.
   - (b) is a graph having the arcs and transactions.
   - (c) is not related to object modelling technology.
   - (d) None of these

(v) Entities, Attributes and Relationship are associated with

   (a) logical concepts of data

   (b) physical concepts of data

   (c) persons of an organization

   (d) None of these

(vi) Prototype is a

   (a) mini model of the existing system

   (b) mini model of the proposed system

   (c) working model of the existing system

   (d) None of these

(vii) White box testing is also known as

   (a) Procedure testing

   (b) Performance testing

   (c) Structural testing

   (d) All of these

(viii) The first step in the SDLC is

   (a) Preliminary investigation and analysis

   (b) System design

   (c) Database design

   (d) None of these

(ix) Validation testing is called

   (a) Beta testing

   (b) Alpha testing

   (c) Gamma testing

   (d) Acceptance testing

(x) Open system interacts with the

   (a) boundary

   (b) environment

   (c) control

   (d) closed systems

(xi) Structured English is

   (a) Coding technique

   (b) Designing tool

   (c) Used for testing

   (d) None of these

Group – B

(Short Answer Type Questions)

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

2. What is a relationship? Describe different types of relationship with examples. 1+4=5

3. What is a flowchart? What are the advantages and limitation of flowchart? 2+3=5

4. What is System Analysis? What are the roles of a System Analyst? 2+3=5

5. Write the advantages and disadvantages of incremental model. 5

6. What is data dictionary? What are the use of data dictionary? 2+3=5

Group – C
(Long Answer Type Questions)
Answer any three of the following:

15×3=45

Describe different types of feasibility study.

Describe different types of risks related to a system.

What is Structured English?

7+5+3=15

DmL has the following policy on deposits:
On deposits of ₹ 5,000 and above for three years or above the interest rate is 12%. On the same deposit for period less than 3 years it is 10%. On deposits below ₹ 5,000 the interest rate is 8% regardless of the period of deposit.

Represent the above information in:

7½+7½=15

Decision table

Decision tree

Describe it fully.

64 (1+3)+5=15

Describe different types of cohesion and coupling.

(4+4+4)+3=15

5×3=15