2013

Time : 3 hours

Full Marks : 80

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group – A

(Objective Type Questions)

Answer all questions of the following :

1. Choose the correct answer of the following :

   \[ 2 \times 10 = 20 \]

   (a) A feasibility study :

      (i) Includes a statement of the problem

      (ii) Considers a single solution

      (iii) None of the problem

      (iv) Both (a) and (b)

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(Turn over)
(b) A graphic representation of an Information System is called:
   (i) Chart
   (ii) Data flow diagram
   (iii) Pictogram
   (iv) None of the above

(c) A system analyst does not need to consider:
   (i) Operational feasibility
   (ii) Technical feasibility
   (iii) Economics feasibility
   (iv) None of the above

(d) During what phase, the requirements analysis is performed?
   (i) System design phase
   (ii) System development phase
   (iii) System analysis phase
   (iv) System investigation phase

(e) While constructing a data dictionary, the analyst considers:
   (i) Each data flow in the DFD has one data dictionary entry

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(ii) Definitions must be readily accessible by name

(iii) There should be no redundancy in the data definition

(iv) All of the above

(f) Which of the following is generally not contained in a feasibility document?

(i) Problem descriptions

(ii) Project name

(iii) Feasible alternative solutions

(iv) Dataflow diagrams

(g) Which of the following tools is (are) used in modeling the new system?

(i) Data dictionary

(ii) Decision table

(iii) Data flow diagrams

(iv) All of the above

(h) A decision-Table is:

(i) A way to get an accurate picture of the system

UK – 8/3  (3) (Turn over)
(ii) A way to representing the information flow
(iii) A way of representing multiple conditions
(iv) All of the above
(i) Which of the following symbols is (are) not used the Data Flow Diagram (DFD)?
(i) A square
(ii) An open rectangle
(iii) A circle
(iv) Triangle
(j) Unit testing is:
(i) Running the system with line data by the actual user
(ii) Making sure that the new programs do in fact process certain transactions according to specification
(iii) Is checking the logic of one or more programs in the candidate system
(iv) Testing changes made in an existing or a new program
Group – B

(Long-Answer Type Questions)

Answer any four questions of the following:

\[ 15 \times 4 = 60 \]

2. What are the characteristics of a system? What are system elements? Explain in detail.

3. Define Software Development Life Cycle and discuss different models of SDLC.

4. Explain the different tools used for structured analysis. What are the shortcomings of the DFD model?

5. What is sequential and indexed-sequential file organization? Compare the advantages and disadvantages of both file organizations.

6. What is testing important in system design? Explain different types of testing used in information systems.

7. What is meant by system analysis? What characteristics are desirable in good system analysis?

UK – 8/3 (5) (Turn over)
8. What is feasibility analysis? Explain different types of feasibility study in detail.

9. What is ER diagram? Explain different components of ER diagram. Discuss the use of ER diagram in data modeling.

10. Write short notes on any two of the following:
   (a) Structured chart
   (b) Decision table
   (c) Decision tree
   (d) Software Quality Assurance

UK - 8/3 (600) (6) BCA - II/10/13