

BCA 2nd Semester Exam., 2021

SYSTEM ANALYSIS AND DESIGN

Time : 3 hours

Full Marks : 60

Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **SEVEN** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question Nos. 1 and 2 are compulsory.

1. Choose the correct answer (any six) : $2 \times 6 = 12$

(a) Which of the following activities does not belong to the implementation phase of the SDLC?

- (i) File conversion
- (ii) Program testing
- (iii) User training
- (iv) All of the above

(b) During what phase, the requirement analysis is performed?

- (i) System design phase
- (ii) System development phase
- (iii) System analysis phase
- (iv) System investigation phase

- (c) Which of the following is/are the characteristic(s) of a system?
- (i) Organization
 - (ii) Interaction
 - (iii) Interdependence
 - (iv) All of the above
- (d) Which of the following is not considered as a tool at the system design phase?
- (i) Pie chart
 - (ii) Data-flow diagram
 - (iii) Decision table
 - (iv) Systems flowchart
- (e) The requirements report includes
- (i) a hierarchy chart showing the top-level modules
 - (ii) a list of alternative solutions considered
 - (iii) a data-flow diagram describing the proposed new system
 - (iv) All of the above
- (f) Difference between decision tables and decision trees is/are
- (i) value to end user
 - (ii) form of representation
 - (iii) one shows the logic while other shows the process
 - (iv) All of the above

- (g) The structure chart is
- (i) a document of what has to be accomplished
 - (ii) a statement of information processing requirement
 - (iii) a hierarchical partitioning of the program
 - (iv) All of the above
- (h) The main objective of system evaluation is
- (i) to see whether the system met specification
 - (ii) to improve the system based on operational experience for a period
 - (iii) to remove bugs in the programs
 - (iv) to assess the efficiency of the system
- (i) The main objective of feasibility study is
- (i) to assess whether it is possible to meet the requirements specifications
 - (ii) to assess if it is possible to meet the requirements specified subject to constraints of
 - ~~(iii)~~ budget, human resource and hardware
 - (iv) to assist the management in implementing the desired system

(Turn Over)

- (j) Problem analysis is done
- (i) during system design phase
 - (ii) during systems analysis phase
 - (iii) before system test
 - (iv) All of the above

✓ 2. Answer any *three* of the following : 4×3=12

- (a) What is requirements determination?
- (b) What is feasibility study?
- (c) What is systems analysis?
- (d) Explain joint application development (JAD).
- (e) What is a software project scope?

✓ 3. Discuss different types of feasibility study. 12

✓ 4. Discuss various system models. 12

✓ 5. What is documentation? What are the advantages of documentation? 12

6. What is a system analyst? Discuss the roles of system analyst. 12

7. Explain and differentiate between top-down and bottom-up approach. 12

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