

SARDAR PATEL UNIVERSITY
MCA I Semester Examinations, 2018
PS01CMCA24: Systems Analysis and Design

Date: 27/11/2018 Time: 10:00 am to 1:00 pm Marks: 70

Tuesday

Q-1 Select the most appropriate answer for the following questions. [08]

1. _____ is an example of logical boundary of a system.
 - (a) Campus
 - (b) Deadline
 - (c) Geographical area
 - (d) None of these

2. Systems analysis deals with what are the _____ of existing system.
 - (a) Users
 - (b) Problems and limitations
 - (c) Requirements
 - (d) All of these

3. _____ feasibility test deals with cost-benefit aspects of a system.
 - (a) Economical
 - (b) Operational
 - (c) Technical
 - (d) Organizational

4. _____ is a tool for requirements investigation.
 - (a) Interview
 - (b) Questionnaire
 - (c) Observation
 - (d) All of these

5. _____ approach of systems development is quick & iterative by nature.
 - (a) Prototype
 - (b) CASE based
 - (c) SDLC
 - (d) None of these

6. To show flow of data between systems entities _____ diagrams are used.
 - (a) Data flow
 - (b) Function Decomposition
 - (c) Flow chart
 - (d) None of these

7. _____ is a central component of a typical CASE tool.
 - (a) User
 - (b) Developer
 - (c) Data Dictionary
 - (d) None of these

8. _____ is not a tool for requirements documentation.
 - (a) Structured English
 - (b) Decision tree
 - (c) Unit testing
 - (d) All of these

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(P.T.O)

- Q-2** Answer the following questions in brief (ANY SEVEN). [14]
1. List duties of systems analyst in firms of various sizes.
 2. Define an MIS.
 3. List four committees of information system development and management.
 4. List two types of feedback from an information system.
 5. Give structure of data dictionary.
 6. Give a major difference between physical DFD and logical DFD.
 7. Explain two limitations of a typical CASE tool.
 8. What is artificial test data?
 9. List any two software quality parameters.

- Q-3[A]** Draw general diagram of system with labels. Explain its components in detail. [06]
[B] Consider following situation of a typical glossary shop. [06]

-----*Early bird discount*-----
 IF (order arrival time) <= 5 days
 Give 30% discount;
 -----*Late orders*-----
 ELSE IF (order arrival time) >5 days AND (order amount) >= 10 thousand
 Give 30% discount;
 ELSE IF (order arrival time) >5 days AND (5 thousand <=(order amount) <10 thousand)
 Give 20% discount;
 ELSE IF (order arrival time) >5 days AND (order amount) <5 thousand
 Give 10% discount;

Draw a decision tree based on the situation described above.

OR

- [B]** Draw general structure of decision table. Also give one example of decision table of your choice. [06]

- Q-4[A]** Explain SDLC approach to develop system in detail. [06]

- [B]** Draw an FDD, context level DFD and next level DFD for managing inventory of online mobile store. [06]

OR

- [B]** Define DFD and FDD. Draw four symbols of DFD with proper labels. Also lists characteristics of physical DFDs. [06]

- Q-5[A]** Explain the steps of prototype by giving its diagram. Also explain its uses. [06]

- [B]** Draw the structure of a typical CASE tool. Explain its components in detail. [06]

OR

- [B]** What is importance of a data dictionary? Explain in detail. [06]

- Q-6[A]** List three types of maintenance of information system. Explain each in brief. [06]

- [B]** Describe concept of front end and back end tools by taking suitable examples of each. [06]

OR

- [B]** Explain various training methods to train various users of the system. [06]

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