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MCA Semester II

Subject code: **Subject Name: Systems Analysis & Design**

Date : 23·5·14 **Time :** 10 to 2 **Total Marks : 50**

Instructions :

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 Write short notes on the following :

(a) Fact Finding Methods [4]

(b) Data Dictionary [3]

(c) Structured Walkthrough [3]

Q.2 **(a)** Fill in the blanks : [5]

i. A/an _____ is the common boundary between the user and the computer system application.

ii. _____ focusses on specifying what the system or application is required to do.

iii. A system is said to have _____ if it does not produce dangerous or costly failures when it is used in a reasonable manner.

iv. _____ is a process of simplifying the relationship between data elements in a record.

v. A _____ is a diagram that presents conditions and actions.

(b) Consider the process of depositing and withdrawal of money from a savings bank account in a nationalized bank. Draw a Context Flow Diagram, Level-1 and Level-2 data flow diagrams from the CFD. State any assumptions made. [5]

OR

(b) A bank uses the following rules to classify new accounts. If the depositor's age is 21 or above and if the deposit amount is ₹100 or more, then the account type is classified as A. If the depositor is under 21 and the deposit amount is ₹100 or more, then the account is classified as type B. If the depositor is 21 or above and the deposit amount is below ₹100, the account is classified as C. If the depositor is under 21 and the deposit amount is below ₹100, then no account is opened. Develop a decision table for the above mentioned bank for account classification decisions, where the condition alternatives are limited to Y or N. [5]

Q.3 **(a)** What are CASE tools ? Describe the components of CASE tools. [5]

(b) What is a systems prototype ? When is the prototype method most appropriate ? Describe the prototyping process. [5]

OR

Q.3 **(a)** How do messages facilitate user interaction with online systems ? What are the different type of messages ? Explain the purpose of any two. [5]

(b) Under what circumstances is the use of graphic presentations advisable ? Explain. [5]

Q.4 **(a)** What are coding methods ? Explain the different types of coding methods in brief. [5]

P.T.O

(b) What is the objective of a PERT chart ? What components make up the PERT chart ? [5]

OR

Q.4 (a) Explain the methods used for systems conversion. Briefly describe the purpose and contents of a conversion plan. [5]

(b) Discuss the six special system tests. Explain the purpose of each. [5]

Q.5 (a) What is the purpose of systems training ? How do user and operator training differ ? State the advantages and disadvantages of in-house and in-service training. [5]

(b) Outline the concerns a purchaser should have when contracting for software. Explain the importance of each concern. [5]

OR

Q.5 (a) What is a data model ? Explain in brief the data models used in database management system. [5]

(b) Compare and contrast the various project team concepts. [5]

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