

2014

(4th Semester)

BACHELOR OF COMPUTER APPLICATIONS

Course No. : 402

(System Analysis and Design)

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

I. Put a Tick (✓) mark against the correct answer in the brackets provided : 1×10=10

1. System that interacts with their environments is called
 - (a) open system ()
 - (b) environment ()
 - (c) close system ()
 - (d) None of the above ()

2. A matrix of rows and columns that shows conditions and actions is called

- (a) Structure English ()
- (b) Decision tree ()
- (c) Decision rule ()
- (d) Decision table ()

3. Analysts can gain information by

- (a) interview ()
- (b) record review ()
- (c) observation ()
- (d) questionnaire ()

but they cannot obtain information by any other fact-finding method.

4. The process of gathering and interpreting facts, diagnosing problems and using the information to recommend improvements to the system is called

- (a) System study ()
- (b) System analysis ()
- (c) System design ()
- (d) System testing ()

5. A prototype

- (a) is a working system which will be changed through several iterations ()
- (b) helps to crystallize essential design requirements ()
- (c) will provide preliminary information on the workability of the concept ()
- (d) All of the above ()

6. In DFD, a circle symbol represents

- (a) input ()
- (b) data store ()
- (c) process ()
- (d) output ()

7. Which of the following is a design aid and documentation technique for representing the modules of a system as a hierarchy developed by IBM?

- (a) HIPO ()
- (b) Structure Flowchart ()
- (c) Warnier-Orr Diagram ()
- (d) Structure English ()

8. Which of the following determines the capacity of the system to store transaction data on a disk or in other files?
- (a) Peak load testing ()
 - (b) Recovery testing ()
 - (c) Storage testing ()
 - (d) Procedure testing ()
9. Prevent error from occurring in the software is
- (a) Error tolerance ()
 - (b) Error avoidance ()
 - (c) Error detection and correction ()
 - (d) None of the above ()
10. Which of the following is the combination of software applications and a database design to take customer information regarding charges to be made to that customer?
- (a) Billing system ()
 - (b) Payroll system ()
 - (c) Library system ()
 - (d) Inventory system ()

II. State whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark : 1×5=5

1. System is a set of components that interact to accomplish some purposes.

(T / F)

2. Analyst uses questionnaire to collect information from individuals or from groups.

(T / F)

3. In direct cutover method the old system is operated along with the new system.

(T / F)

4. Training refers to the acquisition of knowledge, skills and competence.

(T / F)

5. Back-end tools analysis automates the early activities in the systems development process.

(T / F)

(6)

III. Answer the following questions : 2×5=10

1. Define system. Explain the difference between open and close systems. Give example.

(7)

2. Write the four notations of data flow diagram.

3. What is data dictionary? Explain the importance of data dictionary.

4. Explain Warnier-Orr diagram.

(9)

5. Draw the form design of financial accounting system (at least three forms).

IV/BCA/402

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Course No. : 402

(System Analysis and Design)

Full Marks : 75

Time : 3 hours

(PART : B--DESCRIPTIVE)

(Marks : 50.)

*The figures in the margin indicate full marks
for the questions*

1. (a) How has the work of systems analysts in business changed? Explain why this has occurred. 10

Or

- (b) What is system analysis? Describe the different types of user. 10

2. (a) Describe system development life cycle with diagram. 10

Or

- (b) Explain the three techniques of fact finding. 6

- (c) Write a short note on decision table. 4

3. (a) What is CASE? Describe the CASE components in detail. 4

- (b) What are the objectives of output? Write the types of output. 6

Or

- (c) What is form design? Differentiate between input design and output design. 4

- (d) Describe the three categories of automated tools. 6

4. (a) What is training? Explain the different methods of training. 5

- (b) What is HIPO? Write the advantages and disadvantages of HIPO chart. 5

(3)

Or

- (c) What is conversion? Describe the two methods of handling a system conversion. 5
- (d) What is the purpose of system testing? Discuss six special system tests. 5
- 5. (a) Draw and explain the data flow diagram of Payroll system. 10

Or

- (b) Write the data flow diagram and database design of library system. 10
