

2015

(2nd Semester)

BACHELOR OF COMPUTER APPLICATIONS

Paper No. : BCA-204

(System Analysis and Design)

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

A. Choose the correct answer by putting a Tick (✓) mark
in the brackets provided : 1×10=10

1. — means raw facts or figures, which need to
be processed using computer hardware and
software.

(a) Procedure ()

(b) Data ()

(c) Information ()

(d) Software ()

2. The first step in the SDCC is
 - (a) preliminary investigation ()
 - (b) system design ()
 - (c) maintenance ()
 - (d) feasibility study ()

3. — is a fact-finding technique where the system analyst collects information from individuals through face-to-face interaction.
 - (a) Group communication ()
 - (b) Site visit ()
 - (c) Interview ()
 - (d) Questionnaire ()

4. A design tool that pictorially shows the relation between processing modules in computer software is
 - (a) structure chart ()
 - (b) DFD ()
 - (c) ERD ()
 - (d) Data dictionary ()

(3)

5. Quality assurance activity in the system development involves
- (a) verification ()
 - (b) validation ()
 - (c) testing ()
 - (d) All of the above ()
6. Open system interacts with
- (a) boundary ()
 - (b) control ()
 - (c) structure ()
 - (d) environment ()
7. At the end of the feasibility study it is necessary to prepare a/an
- (a) documentation ()
 - (b) evaluation ()
 - (c) feasibility report ()
 - (d) None of the above ()

8. A software design that allows you to control your computer by using a mouse pointer, Windows and icons is

(a) CASE ()

(b) GUI ()

(c) DFD ()

(d) flowchart ()

9. System documents typically archive various aspects of information systems, viz.,

(a) design documentation ()

(b) program documentation ()

(c) training documentation ()

(d) None of the above ()

10. — is performed to cope up with the changing requirements of the market and organization.

(a) Corrective maintenance ()

(b) Adaptive maintenance ()

(c) Perfective maintenance ()

(d) System maintenance ()

(5)

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

1. Each system can be a subsystem of a larger system.

(T / F)

2. The documentation discipline in an organisation pertains to their creation, processing, storing, retrieving and communication.

(T / F)

3. A question that requires the respondent to express a viewpoint is called a closed question.

(T / F)

4. A weak entity is represented by a double-outlined rectangle in ER diagram.

(T / F)

5. Acceptance testing is done at the user's site.

(T / F)

(6)

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

1. Define system and subsystem with examples.

(7)

=10

2. What is documentation?

(8)

3. Write the four symbols used in DFD.

(9)

4. What do you mean by feasibility reports?

(10)

5. Distinguish between system testing and system acceptance testing.

2015

(2nd Semester)

BACHELOR OF COMPUTER APPLICATIONS

Paper No. : BCA-204

(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. Answer either [(a) and (b)] or [(c) and (d)] :
- (a) Define system. Explain different types of system. 5
 - (b) Explain different subsystems of real life business system. 5
 - (c) Who is system analyst? Explain the role of system analyst. 5
 - (d) Differentiate between manual and automated systems. 5

2. Answer either (a) or [(b) and (c)] :
- (a) What is system development life cycle? Explain various phases of the system development life cycle with a labelled diagram. 10
 - (b) Explain different types of documentation. 5
 - (c) What is feasibility study? Explain the three aspects of feasibility study. 5
3. Answer either (a) or [(b) and (c)] :
- (a) What are fact-finding techniques? Briefly explain different fact-finding technique. 10
 - (b) What is prototyping? Explain its advantages. 5
 - (c) Explain different types of interviews. 5
4. Answer either [(a) and (b)] or [(c) and (d)] :
- (a) What are forms? Explain the three classifications of forms. 5
 - (b) What is user interface? Write the features of a good user interface. 5
 - (c) What is entity relationship diagram (ERD)? Explain the symbols used in ERD. Also explain the three types of relationship exist among entities. 6
 - (d) Differentiate between logical design and physical design. 4

(3)

5. Answer either [(a) and (b)] or (c) :

- (a) Define conversion. Explain the four methods of handling the system of conversion. 5
- (b) What is testing? Explain the four stages in the testing process. 5
- (c) Write the data flow diagram and database design for hospital management system. 10

2015

(4th Semester)

BACHELOR OF COMPUTER APPLICATIONS

Paper No. : BCA-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. People who actually interact with the system are called
- (a) end users ()
 - (b) hands-on users ()
 - (c) indirect users ()
 - (d) None of the above ()

2. System that does not interact with its surrounding is called

- (a) open system ()
- (b) information system ()
- (c) closed system ()
- (d) None of the above ()

3. In routine operating activities, it is common to find that certain activities are repeated while a certain condition exists or until a condition occurs — permit analysts to describe these cases.

- (a) sequence structures ()
- (b) iteration structures ()
- (c) decision structures ()
- (d) None of the above ()

4. A square shape is used to represent — in a data-flow diagram.

- (a) processes ()
- (b) data flow ()
- (c) source and destination ()
- (d) None of the above ()

5. Any information produced by an information system is

(a) input design ()

(b) output design ()

(c) form design ()

(d) code design ()

6. Tools which provide an environment that automates key tasks throughout the entire development process are called

(a) front-end tools ()

(b) back-end tools ()

(c) integrated tools ()

(d) None of the above ()

7. The method which is used when it is not possible to install a new system throughout an organization all at once is called

(a) phase-in method ()

(b) direct cutover method ()

(c) parallel systems method ()

(d) None of the above ()

8. A design aid and documentation technique for representing the modules of a system as a hierarchy developed by IBM is

(a) Structure Flowchart ()

(b) HIPO ()

(c) Warnier-Orr diagram ()

(d) None of the above ()

9. — is/are used for recording expenses and it is proved that transactions have occurred.

(a) Ledger ()

(b) Expenses ()

(c) Profit and Cost ()

(d) Voucher ()

10. Which of the following is a transaction file?

(a) Voucher file ()

(b) Invoice file ()

(c) Purchase order file ()

(d) All of the above ()

(5)

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

1. System analysis is determining how best to solve an information systems problem.

(T / F)

2. A prototype is a working system that is developed to test ideas and assumptions about the new system.

(T / F)

3. Front-end tools are aimed at assisting the analysts in the formulation of program logic, processing algorithms and physical descriptions of data.

(T / F)

4. The code testing strategy examines the logic of the program.

(T / F)

5. The cost incurred by the business in the course of earning revenue is referred to as expenses.

(T / F)

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

1. Explain the different types of end users.

(7)

=10

2. Explain any two fact-finding techniques.

(8)

3. Mention the five components of CASE.

4. Explain HIPO.

(9)

5. Write the four notations of data-flow diagram.

IV/BCA/402

2015

(4th Semester)

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Paper No. : BCA-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) Define System Analysis. What is the role of System Analysts? 10

Or

- (b) What is System Design? Describe the different types of user.

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(Turn Over)

2. (a) Define tool with example. Explain the three tools for documenting procedures and decision. 10

Or

- (b) What are the steps involved in a system development life cycle method?

3. (a) Mention the benefits of using tools. 6

- (b) What are the duties performed by System Analysts while designing output? 4

Or

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

- (d) How does input design differ from output design? 4

4. (a) What is quality assurance? Explain the levels of quality assurance. 10

Or

- (b) What is the importance of training? Explain the training methods. 4

- (c) Explain the six special system tests. 6

(3)

5. (a) Design database of library system and draw an E-R diagram. 10

Or

- (b) Draw and explain the data-flow diagram of payroll system.
