

Dr. Babasaheb Ambedkar Open University
Term End Examination July – 2026

Course	: BCAR/DCAR	Date	: 10-07-2026
Subject Code	: BCAR/DCAR-205	Time	: 03:00pm to 05:15pm
Subject Name	: System Analysis and Design	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Define "System". Discuss the characteristics and elements of an information system. How does a systems analyst improve business performance?
2. Explain the classification of systems like Physical vs. Abstract & Open vs. Closed. Also describe the role of a system analyst in an open system environment.
3. Explain the System Development Life Cycle in detail. Describe the importance of feasibility studies in the SDLC.
4. Write a detailed note on criteria for hardware selection to building a system.
5. Explain the process of Cost/Benefit Analysis. Discuss the various methods used to evaluate the economic feasibility of a proposed system.

Section B

Answer the following (Attempt any four) (20)

1. Discuss the role of Formal and Informal Information Systems in an organization.
2. What is a Data Flow Diagram (DFD)? Explain its four basic symbols used for modeling system requirements.
3. Explain the different sources of project requests and how they are handled within an organization.
4. What is Training? Explain it with different types of training.
5. Differentiate between file design Vs. database design.
6. Write a short note on testing plan & its types.

Section C

Part – A (Multiple Choice Questions) (10)

1. A system that is isolated from environmental influences is known as:
A. Open System B. Closed System
C. Physical System D. Abstract System
2. Which element of a system involves the actual transformation of input into output?
A. Control B. Feedback
C. Processor D. Environment
3. The document that details the nature and scope of a proposed solution is called:
A. Feasibility Proposal B. System Chart
C. Flowchart D. Data Dictionary
4. Which of the following is NOT a level of Quality Assurance?
A. Testing B. Verification
C. Certification D. Budgeting
5. In a DFD, a square symbol defines:
A. Data Store B. Source/Destination
C. Process D. Data Flow
6. Which tool uses a table of contingencies for defining a problem and actions?
A. Decision Tree B. Data Flow Diagram
C. Decision Table D. Data Dictionary

7. What is the smallest addressable unit in a computer?
A. Element B. Record
C. Byte D. Field
8. Which file organization is best suited for "get next" activities?
A. Sequential B. Direct Access
C. Inverted List D. Indexed-Sequential
9. Which view of data deals with how data is stored on a physical medium?
A. Logical View B. Physical View
C. Schema D. Subschema
10. The process of grouping data in the simplest way to minimize redundancy is:
A. Modularization B. Normalization
C. Implementation D. Testing

Part - B (Do as Directed)

(10)

1. The term "system" is derived from the _____ language.
2. A _____ is a representation of a real or planned system.
3. SDLC stands for _____.
4. The _____ committee method is common for project review in large organizations.
5. _____ feasibility tests if the proposed system will work when installed.
6. Costs that do not change regardless of system usage are called _____ costs.
7. DFD stands for _____.
8. _____ is a structured repository of data about data.
9. In a decision table, the upper left quadrant is called _____.
10. The _____ view helps the DBMS decide what data in storage it should act upon.
