



Seat No. \_\_\_\_\_

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**SARDAR PATEL UNIVERSITY**  
**BCA Semester-III (CBCS)(Reg.) Examination**  
**[US03CBCA27] : System Analysis & Design**  
**Thursday, 16<sup>th</sup> June - 2022**

**Time: 1200pm to 02.00pm**

**Total Marks: 70**

**Note:** Figure indicates at right is maximum marks for question.


- Q -1 Select an appropriate option for the following statements. [10]**
- The relationships that exist among the components and define the boundary between a system and its environment are called \_\_\_\_\_  
[a] System [b] Black box  
[c] Sub system [d] Structure
  - The activity that makes possible the transformation of input to output is called \_\_\_\_\_  
[a] Output [b] Goal  
[c] Input [d] Process
  - \_\_\_\_\_ system is one which interact with its environment  
[a] Natural [b] Closed  
[c] Open [d] Physical
  - To conduct a detailed feasibility study, firstly an expert committee called \_\_\_\_\_ committee is appointed.  
[a] Steering [b] Super  
[c] Evaluation [d] None of these
  - \_\_\_\_\_ is considered as an output of the Structure Analysis.  
[a] Structured Specification [b] New System  
[c] Packaged Design [d] Test Plan
  - One of the examples of one-time cost is \_\_\_\_\_  
[a] Salary [b] Construction  
[c] Equipment Maintenance [d] Supply
  - \_\_\_\_\_ is the techniques to collect information from an individuals or from groups.  
[a] Interviewing [b] Questionnaires  
[c] Record inspection [d] Data Input
  - Arranging the data into some desired sequence is known as \_\_\_\_\_  
[a] Data Recording [b] Verification  
[c] Sorting [d] Data Transmission
  - The process represented by a circle is also known as \_\_\_\_\_  
[a] Bubble [b] Bullets  
[c] List [d] Nodes
  - From the following, \_\_\_\_\_ useful when totally novel system is proposed.  
[a] Prototype [b] Flow chart  
[c] DFDs [d] Procedure

①

**Q-2 Do as Directed.**

[08]

**Fill in the blanks.**

1. \_\_\_\_\_ is defined as the result of an operation.
2. The last step of SDLC is \_\_\_\_\_.
3. "Limit Check" is \_\_\_\_\_ type of validation check.
4.  Symbol is used for \_\_\_\_\_.

**State whether below given statement is True or False.**

5. Closed system is self-contained.
6. Programming is the process of writing the instructions to be read and executed by a computer.
7. Observation can look for operational inefficiencies.
8. Completion of the Prototyping Process signals the beginning of the next activity.

**Q-3 Answer the Following Questions in brief (Attempt any Ten)**

[20]

1. What is System? Give example of the system.
2. List elements of system.
3. What is System Analysis?
4. What is problem identification? Explain its merits in SDLC.
5. List Tangible and Intangible benefits.
6. List tools used by Structured Analysis other than DFDs
7. Write basic steps for process of Data Capture.
8. List types of Output media.
9. Write any four points which Interviewer has to remember for conducting an Interview.
10. Draw and define the symbols used in DFDs.
11. What is Prototype?
12. Draw the Context level diagram for College Payroll System

**Q-4 Write answer in detail for the following questions (Attempt any Four)**

[32]

1. Discuss types of systems with examples in detail
2. Who is System Analyst? Discuss role of System Analyst.
3. What is SDLC? Explain System Analysis considering SDLC.
4. What is SSADM? List different methodology of SSADM and explain any three of them.
5. What is Output? Discuss objectives of an Output with its Design Principles and types in detail.
6. List categories of Fact Gathering Techniques and discuss any two of them in detail with its merits and demerits.
7. What is DFDs? Explain merits and demerits of DFDs and discuss rules for constructing DFDs.
8. Draw Prototype Development Model and discuss steps of Prototype Process in detail.

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