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(20524) Roll No. .....

B.Sc. (Com. Sci.)-VI Sem.

NP-3611

B.Sc. (Com. Science)

Examination, May-2024

SYSTEM ANALYSIS AND DESIGN

(BCS-601)

Time : Three Hours] *[Maximum Marks : 75*

Note : Attempt **all** the sections as per instructions.

Section-A

(Very Short Answer Type Questions)

Note : Attempt all **five** questions. Each question carries **3** marks. 5×3=15

1. Elaborate the term 'System'. Give characteristics of a system.
2. Why is the role of physical DFD and logical DFD in data modeling?

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3. Mention the utility of decision tables in representing process logic.
4. Give three characteristics of Rapid Application development model.
5. Explain the meaning of 'electronic data interchange' and 'e-commerce'.

Section-B

(Short Answer Type Questions)

Note : Attempt any **two** questions out of the following three questions. Each question carries 7.5 marks.

2×7.5=15

6. What do you understand by normalization of relational DBMS? What are the benefits of attaining 1NF, 2NF and 3NF?
7. Elaborate any three approach of gathering information for system analysis and design.

8. Discuss the Entity-Relationship diagram with the help of an example.

Section-C

(Long Answer Type Questions)

Note : Attempt any **three** questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. 3×15=45

9. Explain the steps involved in Software Development Life Cycle. Elaborate your answer using the Prototyping model.

10. Write a detailed note on Cost/Benefit analysis for a project giving due attention to the scope, issues and challenges involved.

11. What do you mean by Case diagram, Class diagrams and Object diagrams? Discus the utility of each as a tool for a system analyst.

12. Why is investigation of the system requirements a crucial for overall development of system? Describe the process of investigating the system requirements.

13. Write short notes on any **two** of the following:

    (i) Challenges in developing a new system

    (ii) Porter's Value Chain Model

    (iii) Need for system change/ development