



**Second Term Exam - 2071**

Grade: XII  
Time: 3 hrs.

Subject: Computer Science

F.M.:75  
P.M.:30

**Set A**

*Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.*

**Group A**

- Attempt **any four** questions: [4×10=40]
- a. Define ternary operator and write a c program to find the greatest between two numbers using ternary operator. [2+3]  
b. Write program to print 1 5 9.....up to 20<sup>th</sup> term. [5]
  - What is nested looping? Write a program to print multiplication table of n terms. [4+6]
  - What is recursion? Write a recursive program to print Fibonacci series up to N<sup>th</sup> term. [4+6]
  - Write advantages and disadvantages of array. Write a program to calculate sum of two matrices. [4+6]
  - What is a pointer? Write a program to find out greatest among given sets of numbers using pointer. [2+8]

**Group B**

- Attempt **any seven** questions: [7×5=35]
- Differentiate between array and structure. [5]
  - What is Information System? Explain the various types of Information Systems. [1+4]
  - What is DFD? Explain the importance of DFD in system design. [2+3]
  - What is networking? Explain various types of networking on the basis of size. [1+4]
  - Explain the seven layers of OSI Reference model. [5]
  - Define data integrity and data integrity constraints. Explain various types of integrity constraints. [1+4]
  - Differentiate between hierarchical and network database models. [5]
  - Write short notes. ( Any Two) [2.5+2.5]
    - UML
    - Data Dictionary
    - Router



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**Set B**

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**Group A**

- Attempt **any four** questions: [4×10=40]
- a. Define relational operator. Write C program to find greatest between three numbers. [2+3]  
b. Write c program to print multiplication table of given number. [5]
  - Describe for loop, while loop and do while loop with respective examples. [10]
  - Differentiate between recursion and iteration. Write recursive program to calculate factorial of given number. [4+6]
  - Explain any five string handling functions with respective examples. [10]
  - Differentiate between array and pointer. Write c program to sort the given set of numbers in descending order. [4+6]

**Group B**

- Attempt **any seven** questions: [7×5=35]
- Differentiate between break and continue statements. [5]
  - Who is System Analyst? Explain the roles of system analyst. [1+4]
  - What is spiral model? Explain all the phases of spiral model. [1+4]
  - What is network topology? Explain star, bus and mesh topologies with respective merits and demerits. [1+4]
  - What is transmission media? Explain various types of guided transmission media. [5]
  - What is DBMS? Describe any five advantages of DBMS over file processing system. [1+4]
  - Differentiate between centralized and distributed database system. [5]
  - Write short notes. ( Any Two) [2.5+2.5]
    - SQL
    - System Testing
    - Switch