



**Pre-Board -2071**

**Subject: Computer Science**

**F.M.: 75**

**P.M.: 30**

**Grade: XII**  
**Time: 3 Hrs.**

**(SET I)**

**Group A**

Attempt **any four** questions

**[4×10=40]**

1. Define operator and operand. Describe different types of operators that are included in C. **[2+8]**
2. What is looping statement? Describe while, do while and for loop with appropriate examples. **[1+9]**
3. Define a string. Explain any four string manipulation functions. **[2+8]**
4. What are the differences between user defined function and library function? Write C program to print the Fibonacci series using recursive function. **[4+6]**
5. What is data file? Write a program which stores name, department and age of employees in a file named "employee.dat" and display the records on monitor. **[2+8]**

**Group B**

Attempt **any seven** questions

**[7×5=35]**

6. Differentiate between array and structure. **[5]**
7. Explain different stages of system development life cycle with clean diagram. **[5]**
8. What is hierarchical database model? List out the advantages and disadvantages of hierarchical database model. **[1+4]**
9. Define networking and communication. Also explain the advantages and disadvantages of networking. **[2+3]**
10. What is transmission media? Explain the various types of guided transmission media with diagram. **[1+4]**
11. Explain inheritance and polymorphism features of OOP with examples. **[2.5+2.5]**
12. What is AI? Explain the applications of AI. **[2+3]**
13. Explain the major components of multimedia. **[5]**
14. Write short notes on: **[2.5+2.5]**
  - a) E-Learning
  - b) Cyber law



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**(SET II)**

**Group A**

Attempt **any four** questions

**[4×10=40]**

1. Describe array, pointer and structure with respective examples. **[10]**
2. What is branching statement? Describe if else, if else if, nested if else and switch statements with appropriate examples. **[2+8]**
3. What is array? Write a program to calculate sum of two matrices with size 3X3. **[2+8]**
4. What are the differences between recursion and iteration? Write C program to calculate factorial of given number using recursive function. **[4+6]**
5. What are file opening modes of data file? Explain any four file manipulation functions with appropriate examples. **[2+8]**

**Group B**

Attempt **any seven** questions

**[7×5=35]**

6. Differentiate between structure and union. **[5]**
7. Who is system analyst? Explain major roles of system analyst. **[1+4]**
8. What is network database model? List out the advantages and disadvantages of network database model. **[1+4]**
9. Explain various types of computer network on the basis of size. **[5]**
10. Explain the various types of unguided transmission media with diagram. **[5]**
11. What is OOP? Differentiate between structured programming and object oriented programming. **[1+4]**
12. What is cyber crime? Explain various forms of cyber crimes. **[2+3]**
13. What is e-commerce? Describe advantages and disadvantages of e-commerce. **[2+3]**
14. Write short notes on: **[2.5+2.5]**
  - a) Data Dictionary
  - b) Data Security