

Set-I**Group A**
(Long Answer Questions)Attempt **any four** questions [4×10=40]

1. Write a program which finds the sum, difference and product of 2 numbers using switch case statement. [10]
2. a. Differentiate between while and do-while loop with appropriate example. [5]
b. Write a program to display the following:
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
3. Write a program which asks nth terms of numbers and sort them in ascending order. [10]
4. Write the advantages of functions. Write a program to find the factorial of a given number using function. [5+5]
5. a. Describe fscanf and fprintf function. [5]
b. Write a program which asks name, age, roll-number of student and write it in a file student.dat. [5]

Group B
(Short Answer Questions)Attempt **any seven** questions [7×5=35]

6. Describe SDLC with diagram. [5]
7. Define DBMS. List out the objectives of DBMS. [1+4]
8. What is relational database model? List the advantages and disadvantages of relational database model. [1+4]
9. Describe the terms 'SQL' and 'Data Dictionary'. [2.5+2.5]
10. Define computer network and explain its uses. [2+3]
11. Describe 'simplex', 'half duplex', and 'full duplex' with example. [1+2+2]
12. Differentiate between array and structure with example. [5]
13. What is E-governance? List out the objectives of E-governance. [1+4]
14. Describe any five application of multimedia. [5]
15. Write short notes on: [2.5+2.5]
 - a. Computer crime
 - b. Social impact of the ICT

Set-II**Group A**
(Long Answer Questions)Attempt **any four** questions [4×10=40]

1. a. Describe the switch statement with example. [5]
b. What are the differences between while and for loop? Explain with syntax. [5]
2. What is array? Write a program to read five positive number using array and find out the smallest among them. [4+6]
3. a. Describe the string manipulation function in C. Explain strcpy and strcmp with example. [2+3]
b. Write a program to demonstrate the value of variables and address of variable using pointer in C. [5]
4. Describe the function in C. Write a program to find the sum of 'n' integer number using function in C. [4+6]
5. Differentiate between structure and union. Write a program to input the employee name and post of five employees and display the records in proper format using structure. [3+7]

Group B
(Short Answer Questions)Attempt **any seven** questions [7×5=35]

6. What are the major activities in SDLC with based on waterfall model? [5]
7. What is database? Explain data integrity with suitable example. [2+3]
8. Define DML and DDL with example. [3+2]
9. Describe the Bus and Star topology with suitable diagram. [2.5+2.5]
10. Differentiate between guided and unguided networking media. [5]
11. What are variables in programming? List out the different data types in C program. [2+3]
12. Describe the different mode of file handling concept in C. [5]
13. Describe the cybercrime in Nepal. What are protection methods to the cybercrime? [2+3]
14. What is multimedia? List out the component of multimedia. [2+3]
15. Write short notes on: [2.5+2.5]
 - a. System
 - b. Network protocols

Set-III

Group A (Long Answer Questions)

- Attempt **any four** questions [4×10=40]
1. What is recursive function? Write a program to generate factorial of a given number using recursive function. [2+8]
 2. Describe any five “file handling functions” with examples. [10]
 3. What is looping? Describe for loop, while loop and do-while loop with appropriate examples. [1+9]
 4. Write a program which asks 100 numbers and sort them in descending order. [10]
 5. Write flowchart and c program to find greatest number among four numbers. [10]

Group B (Short Answer Questions)

- Attempt **any seven** questions [7×5=35]
6. What are system analysis and system design? Describe briefly. [5]
 7. Explain advantages of database management system. [5]
 8. What is network topology? Describe any two network topologies with clear diagram. [1+4]
 9. Describe the centralized database system and distributed database system. [5]
 10. Describe Coaxial cable and Satellite. [5]
 11. Describe the different data types which are used in C- programming. [5]
 12. What is OOP? List the advantages of OOP. [5]
 13. Describe the application areas of AI. [5]
 14. Describe the advantages of multimedia. [5]
 15. Write short notes: [2.5+2.5]
 - a. E-commerce
 - b. Normalization

Set-IV

Group A (Long Answer Questions)

- Attempt **any four** questions [4X10=40]
1. a. What is preprocessor? Write program to check the number is odd or even. [1+4]
b. Differentiate between break and continue statements with suitable examples. [1+4]
 2. What are the differences between user defined functions and library function? Write C program using user defined function to calculate y raise to power x. [4+6]
 3. Define operator and expression. Describe different types of operators used in c language. [2+8]
 4. What is table of string? Sort the given strings in alphabetical order using table of strings. [2+8]
 5. Describe fprintf and fscanf file handling functions. Write a c program which writes “Welcome to Nepal” in a data file. [4+6]

Group B (Short Answer Questions)

- Attempt **any seven** questions [7X5=35]
6. What is feasibility study? Explain the different levels of feasibility studies in SDLC process. [1+4]
 7. Who is system analyst? Explain the characteristics of good system analyst. [1+4]
 8. What is computer networking? Distinguish between star topology and ring topology with respective diagrams. [1+4]
 9. Explain various types of guided transmission media. [5]
 10. Explain the normalization process with suitable examples. [5]
 11. What do you mean by data security? Explain the various types of security methods normally adopted in computerized environment. [2+3]
 12. What is computer animation? How is it used in film making industry? [2+3]
 13. What is procedural oriented programming? Explain. [5]
 14. Explain the similarities and differences between array and pointer. [5]
 15. Write short notes. [2.5+2.5]
 - a. Cyber law
 - b. Prototyping

Set-V

Group A (Long Answer Questions)

Attempt **any four** questions

[4X10=40]

1. a. What is header file? Write a program to check the number is divisible 5 and not divisible by 10. [1+4]
b. Write flowchart and c program to print 20 first terms of any series. [2.5+2.5]
2. Differentiate between recursion and iteration. Write recursive program to print Fibonacci series up to Nth term. [4+6]
3. Write the advantages and disadvantages of an array. Write a program to store ten different numbers in an array and print out the greatest numbers. [4+6]
4. What is structure variable? Write a program that reads different names and address into computer and sorts the records into alphabetical on the basis of name using structure variable. [4+6]
5. What are the similarities between array and pointer? Explain the processes: call by value and call by reference with examples. [4+6]

Group B (Short Answer Questions)

Attempt **any seven** questions

[7X5=35]

6. Differentiate between looping and branching statements. [5]
7. What is spiral model? Explain all the stages of spiral model. [1+4]
8. Who is DBA? Explain the responsibility of DBA. [2+3]
9. Explain the terms: polymorphism and inheritance. [2.5+2.5]
10. Explain the various types of network topologies. [5]
11. What is ICT? Discuss the impact of ICT in our society. [5]
12. What is computer network? Discuss the advantages and disadvantage computer. [2+3]
13. Define the terms: virtual reality and E-Learning [5]
14. What is AI? Explain the application area of AI. [5]
15. Write short notes (any two) [2.5+2.5]
 - Documentation
 - Router

The End