**Computer - XII [Mgmt.]**

**SET – ‘A’**

**Group ‘A’**

**C programming [40 marks]**

**Attempt any four questions: [4X10=40]**

1. What is looping? Describe ‘for loop’, ‘while loop’ and ‘do while loop’ with appropriate examples. [1+9]

2. a) What is function? List out advantage of function. [2.5]

b) Write a program to find the factorial of a given program using function. [2.5]

3. What is control statement? Write program which asks to input three different numbers and prints the largest among three using if-else if statement with flowchart. [2+8]

4. a) Describe string manipulation functions in C. Explain strcpy and strcmp functions with examples. [2+3]

b) Write a program to demnostrate the value of variable and address of variable using pointers in C. [2+3]

5. a) Describe fscanf and fprintf functions. [5]

b) Write a program which asks to input name, address and age of a student and write in the file ‘student.dat’. [5]

**Group ‘B’**

**Fundamentals [35 marks]**

**Attempt any seven questions: [7×5=35]**

6. What are the major activities of SDLC with based on waterfall model. [5]

7. What are the types of LAN topologies? Explan with diagram. [5]

8. Describe centralized and distributed database system. [5]

9. What is networking? List out the advantages and disadvantages of network. [1+4]

10. Describe different data types which are used in C language. [5]

11. Describe the application areas of AI. [5]

12. Describe any five application of multimedia. [5]

13. Write the advantages and disadvantages of OOP. [5]

14. What is relational databse model? List the advantages and disadvantages of relational database model. [1+4]

15. Write short notes on: [2.5+2.5]

1. Computer crime
2. Social impact of ICT

**SET – ‘B’**

**Group ‘A’**

**C programming [40 marks]**

**Attempt any four questions: [4X10=40]**

1. Describe array, structure and pointer with examples. [10]

2. What is nested loop? Write a program to display the multiplication table the nth terms of given numbers. [2+8]

3. Describe the functions in C. Write a program to find the sum of ‘n’ numbers using function in C.

4. Write a program which finds sum, difference and product of 2 different input numbers using switch case statement. [10]

5. Write a program to ask 100 different numbers and sort them in ascending order. [10]

**Group ‘B’**

**Fundamentals [35 marks]**

**Attempt any seven questions: [7×5=35]**

6. What is system analysis? Describe briefly. [5]

7. What is DBMS? Explain data integrity with suitable examples. [5]

8. Describe simplex, half duplex and full duplex with examples. [5]

9. Explain different stages of SDLC with neat figure. [5]

10. What is OOP? List different advantages of OOP. [5]

11. Describe the advantages of multimedia. [5]

12. Describe the term DML and SQL [5]

13. Differentiate between guided media and unguided media in networking. [5]

14. What is AI? What are the application area of AI. [5]

15. Write short notes on: [2.5+2.5]

1. e-Commerce
2. Intellectual Property Rights

**SET – ‘C’**

**Group ‘A’**

**C programming [40 marks]**

**Attempt any four questions: [4X10=40]**

1. a) Write difference between ‘while loop’ and ‘do while loop’ with appropriate examples. [5]

b) Write a program to find greatest among 4 input numbers. [5]

2. Describe five “file handling functions” with appropriate examples. [10]

3. Write a program to add two different one dimensional matrices by supplying elements of matrices by the user. [10]

4. What is function? Write a recursive function to find the factorial of an input number. [2+8]

5. a) Describe switch case statement with examples. [5]

b) Write a program to input a number and find whether the number is odd or even. [5]

**Group ‘B’**

**Fundamentals [35 marks]**

**Attempt any seven questions: [7×5=35]**

6. Describe SDLC with diagram. [5]

7. What is network topology? Describe any two network topologies with neat diagram. [5]

8. What is hierarchical database model? List out the advantages and disadvantges of hierarchical database model. [5]

9. Differentiate between arrary and structure with examples. [5]

10. Explain any two transmission media with appropriate diagram. [5]

11. What is ER diagram? Explain the advantage of ER diagram in system design. [5]

12. What is database? List the major uses of database application software. [5]

13. What is e-governance? List out the objectives of e-governance. [5]

14. What are the components of multimedia? Explain. [5]

15. Write short notes on: [2.5+2.5]

1. e-learning
2. Data dictionary

**SET – ‘D’**

**Group ‘A’**

**C programming [40 marks]**

**Attempt any four questions: [4X10=40]**

1. Write a program to read 10 different positive numbers using array and find out the greatest and smallest number among them. [10]

2. Describe any five “string handling functions” with appropriate examples. [10]

3. What is file handling? Write a program which reads employee name, salary of 25 employees print them on monitor from the file “employee.dat” [2+8]

4. a) Write difference between Library functions and User defined function in C with examples. [5]

b) Write a function to input a number and find whether the number is zero, positive or negative number. [5]

5. Write difference between array and structure. Write a program to input name, department and age of 5 different employees and display the records in proper format using structure. [10]

**Group ‘B’**

**Fundamentals [35 marks]**

**Attempt any seven questions: [7×5=35]**

6. What is feasibility study? Explain different levels of feasibility study. [5]

7. Describe DML and DDL with examples. [5]

8. Describe bus topology and star topology with suitable diagram. [5]

9. Explain centralized database and distributed database models. [5]

10. Describe different modes of file handling concept. [5]

11. Who is system analyst? Write the roles and responsibilities of system analyst. [5]

12. What do you mean by object, class and inheritance in terms of OOP. [5]

13. What are the key challenges in implementing e-governance in developing countries? [5]

14. What is multimedia? What are the components of multimedia? List out. [5]

15. Write short notes on: [2.5+2.5]

a) Coaxial cable

b) Satellite

**SET – ‘E’**

**Group ‘A’**

**C programming [40 marks]**

**Attempt any four questions: [4X10=40]**

1. Write any two features of C language. Write a program that reads name and salary of 25 employees and count the number of employees whose salary is between 30,000 and 40,000. [2+8]

2. a) Describe fopen and fclose file handling functions with examples. [5]

b) Write a program that writes “Welcome to Nepal” in a data file “info.dat”. [5]

3. a) Write difference between one-dimensional array and two-dimensional array. [5]

b) Write a recursive function to find the sum of ‘N’ natural numbers. [5]

4. What are control statements? Explain different control statements with examples. [10]

5. Write a program to input a sentence and count the number of vowels, consonants, spaces and words in the sentence. [10]

**Group ‘B’**

**Fundamentals [35 marks]**

**Attempt any seven questions: [7×5=35]**

6. What is system design? Write and explain any four system design tools. [5]

7. What is DBMS? Write advantages and disadvantages of DBMS. [5]

8. What do yo mean by OSI reference model? Explain different layers of OSI reference model with the help of a neat diagram. [5]

9. What is variable in c programming? List out different data types in c programming. [5]

10. Differentiate between client server network and peer to peer network. [5]

11. What is cyber law? Write different components of cyber law. [5]

12. What is AI? What are the different uses of AI? [5]

13. Explain the database models with examples. [5]

14. What is OOP? List the features and applications of OOP. [5]

15. Write short notes on: [2.5+2.5]

1. Network protocol
2. Types of network