COMPUTER PROGRAMMING QUESTION BANK

UNIT-I

1. What is a Computer? Explain about characteristics of a computer.
2. What is a algorithm? What are the criteria's for an algorithm?
3. What is a flow chart? Explain about advantages and disadvantages.
4. Define different types of programming languages in C.
5. Explain about the software development process.
6. Write about Flowchart with all symbols
7. Define algorithm, Write about the advantages and disadvantages of it
8. Write about characteristics and Uses of C language?
9. Explain structure of C program?
10. What is an interpreter? How to compile a C program?
11. What is computer hardware? Explain about components of a computer.
12. What is computer software? Explain about different types of software.
13. Write about program development steps?

UNIT-II

1. What is data type? Explain basic data types and their size and range.
2. Write an algorithm for the finding biggest of three numbers.
3. What is a operator? Explain about relational and logical operators.
4. Write a program for performing the arithmetic calculation.
5. What are variables? What are the rules for declaring the variables?
6. What are the constants? Explain about constants.
7. What is the difference between the post increment and pre increment operators? What is the output of the following if k=5, i=++k, j=k++, k++, ++k.
8. What is type conversion? Explain different types of type conversions.
9. What is masking and Rotation?
10. Explain about Shift operators with example?
11. Explain about input and output statements in c language?
12. Explain about Header Files in C language?

UNIT-III

1. Explain about the selection statements with examples.

2. Write an algorithm for sum of digits in a given number.

3. Explain about different iterative statements with examples.

4. Write a program to print numbers from 1 to 100 using while loop.

5. Explain multi-way selection statement with an example?

6. Write about Entry controlled statements in C.

7. Write about Exit controlled statements in C.

8. What is the difference between break and continue. Give one example?

9. Write about jump statements in C

10. Write a program for the printing the following pattern on the screen.

    1
    1 2
    1 2 3

11. Write a program to check whether the given number is Armstrong or not.

12. Explain about the break and continue with example.

UNIT-IV

1. What is a function? What are the different types of functions?

2. What do you mean by functions? Give the structure of the functions and explain about the arguments and their return values.

3. What is a recursion? Write a program to find factorial of a number.

4. Explain the following storage classes with example

    I) auto ii) extern iii) register iv) static

5. Explain about parameter passing techniques or algorithms or mechanism.

6. Differentiate user defined and predefine function. Explain with one example.

7. The roots of a quadratic equation of the form $ax^2+bx+c = 0$ are given by the following equations:
   $x_1=-b+\sqrt{(b^2-4ac)}/2a$
   $x_2=-b-\sqrt{(b^2-4ac)}/2a$
   Write a function to calculate the roots.

UNIT- V

1. Define an array. How to declare and initialize 1-d and 2-d arrays?
2. Write a C program to print addition of two matrices.
3. Write a C program to print multiplication of two matrices.
4. What is a string? How to declare and initialize strings?
5. What is the different string handling functions? Explain.
6. Write a c program to print palindrome string.
7. Write a c program to find the length of a string.

UNIT- VI

1. Write a C program to swap two numbers using pointers.
2. Define a structure. How to declare a structure? Give one example.
3. Write a C program to merge two files into a third file.
4. Write a C program to copy the contents of one file into another file.
5. Explain the differences between structures and unions.
6. What is a nested structure? Explain with an example program.
7. What is a pointer? How is a pointer initiated? Explain the process of accessing a variable through its pointer. Give an Example.
8. Write a program and explain the working of malloc and calloc functions.
9. Define pointer and how can you implement call by address
10. What is difference between array and pointer.
11. What is dangling pointer?
12. What is a file? Explain about different types of files in C. How do you declare and closing a file in c?
13. What are the different file opening modes? Explain about them.