

## Short Answer Type Question

AMRITA BHATNAGAR

Q-1 What are unions? What is the difference between a union and a structure.

Q-2 (a) Describe the switch statement. What is the difference between if and switch statements?

(b) Give the difference between break and continue statement.

Q-3 Write a program to display all the even numbers between 1 and 100 using for loop.

Q-4 (a) What is the purpose of if statement? Describe the different form of if statement.

(b) Write a program to compare the two strings.

Q-5 (a) What is preprocessor? Which preprocessor is used to define a macro.

(b) What will be the output of this program.

```
#include <stdio.h>
void main()
{
    int s = 0;
    while (s++ < 10)
    {
        if (s < 4 && s < 9)
            continue;
        printf (" %d\n", s);
    }
}
```

Q-6 What do you mean by function prototyping? Describe the different styles of writing prototypes. Is prototyping mandatory in C program? Justify your answer.

Q-7 Prepare a function program to sort an array of integers in to ascending order.

Q-8 What is a pointer? What is its significance? Differentiate between pointer(\*) and address(&) operator using examples

Q-9 (a) What are basic data types in C.

(b) What will be the output of the following code:

```
Sum = 0
for (i = 1; i < 10; i++)
{
    Sum = Sum + i;
}
printf("%d", Sum);
```

Q-10 (a) What is structured programming? Discuss the program development process.

(b) What do you mean by assembly language.

Q-11 List the different types of operators in C. Discuss the following with examples.

(a) Conditional operators

(b) Relational operators.

Q-12 Write a C program to generate and print the numbers between 100 and 200 which are divisible by 3, but not divisible by 4.

Q-13 (a) Explain the difference between the definition of a function and declaration of a function.

(b) What will be the output

```
#include <stdio.h>
void func()
{
    int x = 0;
    static int y = 0;

    x++;
    y++;
    printf("%d -- %d\n", x, y);
}
```

```

int main( )
{
    func( );
    func( );
    return(0);
}

```

Q-14 (a) what is meant by a multiuser and multitasking operating system?

(b) what do you understand by Translators.

Q-15 Convert the following

(i)  $(1245.32)_{10} = ( ? )_8$

(ii)  $(110.01)_2 = ( ? )_{10}$

(iii)  $(6B9)_{16} = ( ? )_{10}$

(iv)  $(6D.3A)_{16} = ( ? )_2$

(v)  $(364)_8 = ( ? )_{10}$

Q-16 Draw the block diagram of digital computer & explain its part.

Q-17 Explain the term

(a) High level language

(b) Low level language

(c) Assemble language

(d) Middle level language

(e) procedural language

Q-18 Draw a flowchart for calculate the factorial of a no.

Q-19 Explain string handling functions & Math functions.

Q-20. what do you understand by memory. Give the types of memory.

## Long answer type Question

Q-1 write a program to find highest and lowest elements in an array.

Q-2 Write a program to find the transpose of a matrix.

Q-3 write a program to generate the fibonacci series.

Q-4 write a program to search an element in an array using linear search technique.

Q-5 What is storage classes. State the scope rules of the various types of storage classes.

Q-6 write a program to find the sum of the two matrices a and b store the sum in matrix c. Print matrix c using pointers.

Q-7 write a program to find whether the given number is even or odd and if it is odd find whether it is prime or not.

Q-8 write a program to find the sum:

$$\text{Sum} = 1 + \sqrt{2} + \sqrt{3} + \sqrt{4} + \sqrt{5} + \sqrt{6} + \dots$$

Q-9 Write a structure showing the data of a book having the elements name, author\_name, price, year and edition.

Q-10 what do you mean by recursion. Write a program to generate the table of number entered by user using recursion.