

- (d) Give the loop statement to print the following sequence of integer.

-8 -6 -4 -2 0 2 4 6 8

- (e) Draw flow chart for do-while loop statement.
(f) Why do we need signed and unsigned char?
(g) Define the operating System. What are the functions of Operating System ?

(h) #include <stdio.h>

void main()

{

int a = -5;

int k = (a++, ++a);

printf("%d\n", k);

}

- (i) If a=10 and b=15, find the value of following statement:
a<b? a+5: b+6
(j) What is NULL character? Why is it important ?

SECTION - B

Attempt any **six** parts of this question.

(5×6=30)

Each part carries **05** marks.

- 2 (a) What are the advantages of using C Processor ? Write a program using macros to find the area of circle.
(b) What is recursive function ? Write a program using recursive function to calculate the factorial of a given number.
(c) Define a Structure type, struct Personal that would contain person name, date of joining and salary. Using this structure, write a program to read this information for one person from the key board and print same on the screen.
(d) Name the 8 different DOS commands with example.

- (e) Convert the following :

(i) $(11010.0010)_2 = O_{16}$

(ii) $(786.983)_{10} = O_{16}$

(iii) $(467.342)_8 = O_{10}$

(iv) $(7BD.3E)_{16} = O_2$

(v) $(82.35)_{10} = O_4$

- (f) Explain with Example, the syntax and usage of the following in C Program.

(i) Array of Structure.

(ii) Structure Pointers.

- (g) Write the function to concatenate two strings without using the library function.
(h) Primary data types in C language, mentioning their range, space they occupy in memory and keyword used for their representation in programming.

SECTION - C

Attempt **all** questions. Each question carries **10** marks. (10×5=50)

3 Attempt any **One** Part :

- (a) Write a program in c language to find the sum of series
Sum = $x - x^3/3! + x^5/5! - x^7/7! + x^9/9!$
(b) What is the difference between array and structure ? Write a program in C to find the largest number of a 4×4 matrix.

4 Attempt any **One** Part :

- (a) Write a program in C to reverse a string by using pointer.
(b) Write a program in C to classify a given no as prime or composite.