

**PPS PRACTICAL FILE**

**Submitted To:**

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**UIET MDU, Rohtak**

**CSE**

**-**

**II**

**(1st sem)**

**1. Program to Output the multiplication table:**

#include <stdio.h>

#include <stdlib.h>

int main()

{ int n=5, i;

//Using for loop for applying conditions

 for (i = 1; i <= 10; i++) {

printf("%d \* %d = %d \n", n, i, n \* i);

    }

    return 0; }

//

OUTPUT

5 \* 1 = 5

5 \* 2 = 10

5 \* 3 = 15

5 \* 4 = 20

5 \* 5 = 25

5 \* 6 = 30

5 \* 7 = 35

5 \* 8 = 40

5 \* 9 = 45

5 \* 10 = 50

Process returned 0 (0x0) execution time : 0.096 s

Press any key to continue.

**2. Given the radius of a circle. Write a Program to compute and displays its area.**

#include <stdio.h>

#include <stdlib.h>

#include<math.h>

#define pie 3.14

int main()

{ float r,area;//r is the radius of circle

printf("Enter the radius of circle:");

scanf("%f",&r);

area= pie\*r\*r;// Formula to calculate the area.

printf("The area of Circle is %4.2f",area);

return 0; }

**1st OUTPUT**

Enter the radius of circle:1

The area of Circle is 3.14

Process returned 0 (0x0) execution time : 7.814 s

Press any key to continue.

**2nd OUTPUT**

Enter the radius of circle:3.14

The area of Circle is 30.96

Process returned 0 (0x0) execution time : 13.387 s

Press any key to continue.

**3rd OUTPUT**

Enter the radius of circle:5.26

The area of Circle is 86.88

Process returned 0 (0x0) execution time : 11.612 s

Press any key to continue.

**3. Write a program to calculate the average of set of n numbers**

#include <stdio.h>

#include <stdlib.h>

#include<math.h>

int main(){

int n, number, i;//n is the total number of which average is calculated

float average, sum = 0;

      printf("\nEnter Total Number of Elements:\t");

      scanf("%d", &n);

      i = 0;// i is counter variable

      while(i < n)

      {printf("Enter Element No. %d:\t", i + 1);

            scanf("%d", &number);

            sum = sum + number;

            i++; }

      average = sum /n;

      printf("\nAverage of N Numbers:\t%4.2f\n", average);

      return 0;}

**1ST** **OUTPUT**

Enter Total Number of Elements: 5

Enter Element No. 1 : 7

Enter Element No. 2 : 9

Enter Element No. 3 : 4

Enter Element No. 4 : 10

Enter Element No. 5 : 5

Average of N Numbers: 7

Process returned 0 (0x0) execution time : 17.943 s

Press any key to continue.

**2nd OUTPUT**

Enter Total Number of Elements: 4

Enter Element No. 1: 7

Enter Element No. 2: 8

Enter Element No. 3: 6

Enter Element No. 4: 2

Average of N Numbers: 5.75

Process returned 0 (0x0) execution time : 8.784 s

Press any key to continue.

**4. Write a program to convert the given temperature in Fahrenheit to celcius and vice versa.**

// Conversion of Calsius to Fahrenheit And Vice versa

//Deepak UIET MDU,ROHTAK

#include <stdio.h>

#include <stdlib.h>

int main()

{ float c,f;//Here c is for Celsius and f is for Fahrenheit

   printf("Enter the temperature in celsius:");// temperature in calcius

   scanf("%f",&c);

   f=1.8\*c/ +32;// Relation betweeen celsius and fahrenheit

   printf("\n The Temperature in Fahrenheit is %6.2f",f);

   //CONVERSION OF TEMPERATURE FROM FAHRENHEIT TO CALSIUS

   printf("\n\n\n");

    float c1,f1;//Here c1 is for Celsius and f1 is for Fahrenheit

    printf("Enter the Temperature in Fahrenheit :");

    scanf("%f",&f1);

    c1=(f1-32)/1.8;//Relation between celcius and farhenheit

    printf("\n The temp in celsius is %6.2f",c1);

    return 0;

}

**1st OUTPUT**

Enter the temperature in celsius:32

The Temperature in Fahrenheit is 89.60

Enter the Temperature in Fahrenheit :89.60

The temp in celsius is 32.00

Process returned 0 (0x0) execution time : 13.177 s

Press any key to continue.

**2nd OUTPUT**

Enter the temperature in celsius:50

The Temperature in Fahrenheit is 122.00

Enter the Temperature in Fahrenheit :32

The temp in celsius is 0.00

Process returned 0 (0x0) execution time : 4.968 s

Press any key to continue.

**5. Write a program to print the size of various data types in C.**

int main() {

    int intType;

    float floatType;

    double doubleType;

    char charType;

    // sizeof evaluates the size of a variable

    printf("Size of int: %zu bytes\n", sizeof(intType));

    printf("Size of float: %zu bytes\n", sizeof(floatType));

    printf("Size of double: %zu bytes\n", sizeof(doubleType));

    printf("Size of char: %zu byte\n", sizeof(charType));

    return 0;

}

**OUTPUT**

Size of int: 4 bytes

Size of float: 4 bytes

Size of double: 8 bytes

Size of char: 1 byte

Process returned 0 (0x0) execution time : 0.039 s

Press any key to continue.

**6.**  **Admission to a professional course subject to the following conditions:**

**(a)Marks in Mathematics60 (b) Marks in Physics>=50 (c) Marks in Chemistry> 40 (d) Total in all three Subjects>=200 or Total in Mathematics and Physics>= 150 .Given the marks in the three subjects, write a program to process the applications to list the eligible candidates.**

void main()

{

 int Maths,Phy,Chem,Total,Total\_MP;

 printf("Enter the marks of maths :");

 scanf("%d",&Maths);

 printf("Enter the marks of phy :");

 scanf("%d",&Phy);

 printf("Enter the marks of chem :");

 scanf("%d",&Chem);

 Total=Maths+Phy+Chem;

 Total\_MP=Phy+Maths;

 if (Maths>=60 && Phy>=50 && Chem>=40 && Total>=200)

 printf("The candidate is eligible for the admission");

 else

 { if(Total\_MP>=150)

 printf("The candidate is eligible for the admission");

   else

   printf("The candidate is not eligible for the admission");}

   getch(); }

**1st OUTPUT**

Enter the marks of maths :87

Enter the marks of phy :67

Enter the marks of chem :78

The candidate is eligible for the admission

Process returned 13 (0xD) execution time : 8.896 s

Press any key to continue.

**2nd OUTPUT**

Enter the marks of maths :56

Enter the marks of phy :73

Enter the marks of chem :65

The candidate is not eligible for the admission

Process returned 13 (0xD) execution time : 9.113 s

Press any key to continue.

**7. Write a program to print the following output using loops**

**1**

**2 2**

**3 3 3**

**4 4 4 4**

**5 5 5 5 5**

//Program to print the counting pattern using for loop

#include<stdio.h>

#include <stdio.h>

int main (){

int i, j;

for (i-1;i<=5;i++){

for(j=1; j<=i; j++){

printf("\t%d\t", i);

}

printf("\n");}

return 0;}

**OUTPUT**

1

2 2

3 3 3

4 4 4 4

5 5 5 5 5

Process returned 0 (0x0) execution time : 0.047 s

Press any key to continue.

**8. Write a program that will compute the length of a given character string.**

//  program to find the length of string

#include <stdio.h>

#include <string.h>

int main()

{

    char Str[500];

    int i;

    printf("Enter the String: ");

    scanf("%s", Str);

    for (i = 0; Str[i] != '\0'; ++i);

    printf("Length of Str is %d", i);

    return 0;   }

**1st OUTPUT**

Enter the String: computer

Length of Str is 8

Process returned 0 (0x0) execution time : 12.849 s

Press any key to continue.

**2nd OUTPUT**

Enter the String: mathematics

Length of Str is 11

Process returned 0 (0x0) execution time : 21.352 s

Press any key to continue.

**9. Write a function that can be called to find the largest element of an m by n matrix .**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int m, n, c, d, matrix[100][100], maximum;

printf("Enter the number of rows and columns of matrix\n");

scanf("%d%d",&m,&n);

printf("Enter the elements of the matrix\n");

for (c = 0; c < m; c++)

for(d = 0; d < n; d++)

scanf("%d", &matrix[c][d]);

maximum = matrix[0][0];

for (c = 0; c < m; c++)

for (d = 0; d < n; d++)

if (matrix[c][d] > maximum)

        maximum = matrix[c][d];

printf("Maximum element in the matrix is %d\n", maximum);

  return 0;}

**1st OUTPUT**

Enter the number of rows and columns of matrix

2 2

Enter the elements of the matrix

2

23

45

34

Maximum element in the matrix is 45

Process returned 0 (0x0) execution time : 16.682 s

Press any key to continue.

**2ND OUTPUT**

Enter the number of rows and columns of matrix

2 3

Enter the elements of the matrix

21

2

2

23

4

5

Maximum element in the matrix is 23

Process returned 0 (0x0) execution time : 10.478 s

Press any key to continue.

**10. Write a program using pointers to read in an array of integers and print its element in reverse**

**Order.**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int \*ptr,i,n;

printf("Enter the no of elements:");

scanf("%d",&n);

ptr=(int \*)malloc(sizeof(int)\*n);

if(ptr==NULL)

{

printf("Not enough memory");

exit(1);

}

for(i=0; i<n; i++)

{

printf("Enter %d element : ",i+1);

scanf("%d",&ptr[i]);

}

printf("Array in original order\n");

for(i=0; i<n; i++)

{

printf("%d\n",ptr[i]);

}

printf("Array in reverse order\n");

for(i=n-1; i>=0; i--)

{

printf("%d\n",ptr[i]);

}

getch();

return 0;

}

**1st OUTPUT**

Enter the no of elements:5

Enter 1 element : 12

Enter 2 element : 34

Enter 3 element : 33

Enter 4 element : 54

Enter 5 element : 22

Array in original order

12

34

33

54

22

Array in reverse order

22

54

33

34

12

Process returned 0 (0x0) execution time : 12.801 s

Press any key to continue.

**2ND OUTPUT**

Enter the no of elements:4

Enter 1 element : 11

Enter 2 element : 3

Enter 3 element : 5

Enter 4 element : 7

Array in original order

11

3

5

7

Array in reverse order

7

5

3

11

Process returned 0 (0x0) execution time : 10.479 s

Press any key to continue.