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**Practical 3**

**Q1.**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int n1,n2,max;

printf("Enter two numbers");

scanf("%d %d",&n1,&n2);

if(n1>n2)

max=n1;

else

max=n2;

printf("%d is highest number\n",max);

return 0;

**Q2.**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int n1,n2,max;

printf("Enter two numbers");

scanf("%d %d",&n1,&n2);

if(n1>n2)

max=n1;

else

max=n2;

printf("%d is highest number\n",max);

return 0;

}

**Q3.**

#include<stdio.h>

int main()

{

float bs,ns,inc;

char empname[15];

printf("Enter the employee name");

scanf("%s",&empname);

printf("Enter the basic salary");

sacnf("%f",&bs);

if(bs>=10000)

inc=bs\*0.15;

else if(bs>=5000)

inc=bs\*0.10;

else

inc=bs\*0.05;

ns=bs+inc;

printf("Employee name is %s\n",empname);

printf("new salary is %.2f",ns);

}

**Q4**#include<stdio.h>

int main()

{

float r,c,v,pi=3.1459;

char t;

printf("enter the radius of the circle");

scanf("%f",&r);

printf("select which of these you want to know \n 1.The circumferance of the circle type 'c' \n 2.The area of the circle 'a' \n 3.The volume of the circle type 'v' \n");

scanf(" %c",&t);

if(t=='c')

printf("The circumferance of the circle is %.2f",2.0\*pi\*r);

else if(t=='a')

printf("The area of the circle is %.2f",pi\*r\*r);

else if(t=='c')

printf("The volume of thecircle is %.2f",pi\*r\*r\*r);

else

printf("invalid option");

}.

**Q5**

#include<stdio.h>

int main()

{

int n1,n2;

printf("Enter numbers");

scanf("%d %d",&n1,&n2);

if(n1%n2==0)

printf("%d is multiple of the %d",n1,n2);

else

printf("%d is not multiple of the %d",n1,n2);

**Q6**

#include <stdio.h>

int main() {

char characters[] = {'A', 'B', 'C', 'a', 'b', 'c', '0', '1', '2', '$', '\*', '+', '/', ' '};

int num\_chars = sizeof(characters) / sizeof(char);

printf("Integer equivalents:\n");

for (int i = 0; i < num\_chars; i++) {

printf("%c: %d\n", characters[i], characters[i]);

}

return 0;

}

**Practical 4**

**Q1.**

#include<stdio.h>

int main()

{

int no;

printf("Enter the number");

scanf("%d",&no);

switch(no%2)

{

case 1 :

printf("%d is an odd number");break;

case 0 :

printf("%d is an even number");

}

}

**Q2**

#include<stdio.h>

int main()

{

int n1,n2;

char t;

printf("Enter the first number");

scanf("%d",&n1);

printf("Enter the second number");

scanf("%d",&n2);

printf("select the mathematical operations under these operation\n1.Addition type +\n2.subtraction -\n3.Multiplication type \*\n4.Division type /\n ");

scanf(" %c",&t);

switch(t)

{

case'+' :

printf("addition of %d and %d is %d",n1,n2,(n1+n2));

break;

case'-' :

printf("subtraction of %d and %d is %d",n1,n2,(n1-n2));

break;

case'\*' :

printf("Multiplication of %d and %d is %d",n1,n2,(n1\*n2));

break;

case'/' :

printf("Division of %d and %d is %d",n1,n2,(n1/n2));

break;

default :

printf("%c is invalid operation",t);

}

}

**Q3**

#include<stdio.h>

int main()

{

int rad,cir,area,volume,pi=3.1459;

char t;

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

scanf("%f",&rad);

printf("select which of these option you want to know\n1.circumference of the circle 'c'\n2.area of the circle 'a'\n3.volume of the circle 'v'\n");

scanf(" %c",&t);

if(t=='c')

printf("the circumference of the circle is %.2f",2\*pi\*rad);

else if(t=='a')

printf("the area of the circle is %.2f",pi\*rad\*rad);

else if(t=='v')

printf("the volume of the circle is %.2f",pi\*rad\*rad\*rad);

else

printf("invalid option");

}

**Q4**

#include<stdio.h>

int main()

{

char c;

printf("Enter a character");

scanf("%c",&c);

switch(c)

{

case'a':

case'e':

case'i':

case'o':

case'u':

case'A':

case'E':

case'I':

case'O':

case'U':

printf("%c is vowel");break;

default :printf("%c is not vowel");

}

}

**Q5.**

#include<stdio.h>

int main()

{ int m;

printf("Enter the month number");

scanf("%d",&m);

switch(m)

{ case 1:

case 3:

case 5:

case 7:

case 9:

case 11:

printf("this month has 31 days");break;

case 2:

printf("this month has 28 days");break;

case 4:

case 6:

case 8:

case 10:

case 12:

printf("this month has 30 days");break;

default : printf("invalid month number");

}

}

**Practical 5**

**Q1**. #include<stdio.h>

int main()

{

int x=1;

while(x<=100)

{

printf(" %d",x);

x++;

}

}

#include<stdio.h>

int main()

{

int x=1;

do

{

printf(" %d",x);

x++;

}

while(x<=100);

}

#include<stdio.h>

int main()

{

int x;

for(x=1;x<=100;x++)

{

printf(" %d",x);

}

}

**Q2.**

#include<stdio.h>

int main()

{

int marks[10];

int i, total = 0;

float average;

printf("Enter the 10 marks:\n");

// Reading the marks from the user

for (i = 0; i < 10; i++)

{

printf("Mark %d: ", i+1 );

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

total+=marks[i];

}

average = (float)total / 10;

printf("\nTotal marks: %d\n", total);

printf("Average marks: %.2f\n", average);

if (average < 50) {

printf("Fail!\n");

} else {

printf("Pass!\n");

}

}

**Q3.**

#include <stdio.h>

int main() {

int number, i;

unsigned long long factorial = 1;

printf("Enter a number: ");

scanf("%d", &number);

// Calculating the factorial

for (i = number; i >= 1; i--) {

factorial \*= i;

}

printf("Factorial of %d is %llu\n", number, factorial);

return 0;

}

**Q4.**

#include <stdio.h>

int main() {

int number, remainder, sum = 0;

printf("Enter a number: ");

scanf("%d", &number);

// Calculating the sum of digits

while (number != 0) {

remainder = number % 10;

sum += remainder;

number /= 10;

}

printf("Sum of digits: %d\n", sum);

return 0;

}

**Q5.**

#include <stdio.h>

int main() {

int number, reversedNumber = 0, remainder;

printf("Enter a number: ");

scanf("%d", &number);

// Reversing the digits

do {

remainder = number % 10;

reversedNumber = reversedNumber \* 10 + remainder;

number /= 10;

} while (number != 0);

printf("Reversed number: %d\n", reversedNumber);

return 0;

}

**Q10.**

#include<stdio.h>

int main()

{

int x,y;

for(x=1;x<=5;x++)

{

for(y=1;y<=x;y++)

{

printf("\* ");

}

printf("\n");

}

}