C assignments – Day 7 (2-Sept-2022)

Name – Shreyas Raju Awankar

Que1- Write a program to find the greatest of two numbers using conditional operator.

```c
#include <stdio.h>
void main()
{
    int a, b;
    printf("Enter a & b \n");
    scanf("%d%d", &a, &b);
    int greatest = (a > b) ? a : b;
    printf("The greatest numer is %d", greatest);
}
```

Que2- Write a program to find the smallest of two numbers using conditional operator.

```c
#include <stdio.h>
void main()
{
    int a, b;
    printf("Enter a & b \n");
    scanf("%d%d", &a, &b);
    int smallest = (a < b) ? a : b;
    printf("The smallest numer is %d", smallest);
}
```

Que3 - Write a program to find the greatest of three numbers using conditional operator.

```c
#include <stdio.h>
void main()
{
    int a, b, c, d;
    printf("Enter your numbers \n");
    scanf("%d%d%d", &a, &b, &c);
    d = (a > b) ? ((a > c) ? a : c) : ((b > c) ? b : c);
    printf("The greatest numer is %d", d);
}
```

Que4 – Write a program to read a number from the user and check if the number is positive or negative using conditional operator.

```c
#include <stdio.h>
void main(){
    int a;
    printf("Enter a number \n");
    scanf("%d",&a);
    // Assuming '-1' as negative, '1' as positive and zero is neither positive or
negative...
    int c =(a<=0)?((a<0)?-1:0):1;
    printf("The number is %d", c);
}
```

Que5- Write a program to read a number from the user and check if the number is odd or even using conditional operator.

```c
#include <stdio.h>
void main(){
    int a;
    printf("Enter a number \n");
    scanf("%d",&a);
    // Assuming '-1' as odd, '1' as even...
    // int c =(a%2==0)?1:-1;
    if(a%2==0){
        printf("The given number is an even number");
    }
    else{
        printf("The given number is an odd number");
    }
    // printf("The number is %d", c);
}
```

Que6- Write a program to read a three-digit number from the user and check if the second last digit is even or odd.

```c
#include <stdio.h>
void main(){
    int a;
    printf("Enter a three digit number \n");
    scanf("%d",&a);
    a/=10;
    // Assuming '-1' as odd, '1' as even...
    int c =(a%2==0)?1:-1;
```

```
    printf("The number is %d", c);
}
```

Que7- Write a program to find the circumference of the circle.

```
#include <stdio.h>
void main(){
    float rad;
    printf("Enter the radius \n");
    scanf("%f",&rad);
    // Assuming '-1' as odd, '1' as even...
    float c = 2*3.14*rad;
    printf("The circumference %f", c);
}
```

Que8- Write a program to find the binary of a 3-digit number decimal.

```
#include <stdio.h>
void main(){
    int a,b,c,d,e,sum;
    printf("Enter a three digit binary number\n");
    scanf("%d",&a);
    b= a % 10;
    c= (b==1)?1:0;
    a/=10;
    b=a%10;
    d = (b==1)?2:0;
    a/=10;
    b=a%10;
    e = (b==1)?4:0;
    sum = c+d+e;
    printf("The binary to decimal is: %d", sum);
}
```

Que9- Write a program to convert octal to binary.

```
#include <stdio.h>
#include <string.h>

void main(){
    int num, b, b1, b2, b3;

    printf("Enter a three digit octal number\n");
    scanf("%d",&num);
```

```
    b= num % 10;
    num/=10;
    b1 =
(b==0)?0000:(b==1)?1:(b==2)?10:(b==3)?11:(b==4)?100:(b==5)?101:(b==6)?110:(b==7)?
111:(b==8)?1000:1001;

    b= num % 10;
    num/=10;
    b2 =
(b==0)?0000:(b==1)?1:(b==2)?10:(b==3)?11:(b==4)?100:(b==5)?101:(b==6)?110:(b==7)?
111:(b==8)?1000:1001;

    b= num % 10;
    num/=10;
    b3 =
(b==0)?0000:(b==1)?1:(b==2)?10:(b==3)?11:(b==4)?100:(b==5)?101:(b==6)?110:(b==7)?
111:(b==8)?1000:1001;

    // Assuming binary output as four clusters of 4 digit numbers and there will
be zeros before the first '1'in the output ex- 0011 --> 11, 101 --> 0101 etc.
    printf("The ocatal to binary: %d %d %d",b3,b2,b1); //printf goes right to
left
}
```

Que10- Write a program to read principle, rate of interest and number of years from the user and print the simple interest with that data.

```
#include <stdio.h>
void main(){
    float rate,i;
    int n,p;
    printf("Enter principle, rate, interest \n");
    scanf("%f%d%d",&rate, &n,&p);
    i = p*n*rate/100;
    printf("The simple interest is:  %f", i);
}
```