MATRIC NO:18/SCI01/039
NAME:IJEOMA TOCHUKWU JOSEPH

1)

```
#include <stdio.h>

int main()
{
  int i;

  for ( i = 100; i >= 1; i -=3 )
  {
      printf("%d ",i);
  }
}
```

2)

```
#include <stdio.h>

int main()
{
    int j;
    printf("input:");
    scanf("%d",&j);
    for (int i = 0; i < 80; i++)
        {
            if (j > 59)
                break;
            else
                printf("*");
        }
        printf("\n");


    return 0;
}
```

3)

```
 #include <stdio.h>
int main() {
    int n, i, flag = 0;
    printf("Enter a positive integer: ");
```

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

    for (i = 2; i <= n / 2; ++i) {

        // condition for non-prime
        if (n % i == 0) {
            flag = 1;
            break;
        }
    }

    if (n == 1) {
        printf("1 is neither prime nor composite.");
    }
    else {
        if (flag == 0)
            printf("%d is a prime number.", n);
        else
            printf("%d is not a prime number.", n);
    }

    return 0;
    }
```

4)

```
 #include<stdio.h>
int main()
{
 int i=1,f=1,num;

 printf("Enter a number: ");
 scanf("%d",&num);

 while(i<=num)
{
 f=f*i;
 i++;
 }

 printf("Factorial of %d is: %d",num,f);
 return 0;
}
```

5)

```
#include<stdio.h>
int main()
{
 int n;
 n=50;  // Initialize
 do
  {
   printf(" %d",n);
   n++;
   n+=7;
  }
  while(n<=1000);

 printf("\n");

return 0;
 }
```

6)

```
#include <stdio.h>

int main()
{
    char ch;


    printf("Enter any character: ");
    scanf("%c", &ch);



    if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u' ||
       ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U')
    {
        printf("'%c' is Vowel.", ch);
    }
    else if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
    {

        printf("'%c' is Consonant.", ch);
    }
    else
    {
```

```
        printf("'%c' is not an alphabet.", ch);
    }

    return 0;
}

7)
#include <stdio.h>

int main()
{
    int number, i,a;
    printf(" Enter any Number from 1-10:");
    scanf("%d", &number);
    printf("Enter the multiples:");
    scanf("%d",&a);
    printf("Multiplication table of %d:\n ", number);
    printf("-------------------------\n");
    for (i = 1;i <=a ;i++)
    {
        printf(" %d x %d = %d \n ", number, i, number * i);

    }


    return 0;
}

8)
#include <stdio.h>
int main()
{
    char q1,q2,q3,q4,q5,q6,q7,q8,q9,q10,q11;
    int a,b,c,d,e,f,g,h,i,j;
    printf("Question 1 & 2:");
    scanf("%c\n",&q1);
    printf("Question 3:");
    scanf("%c\n",&q2);
    printf("Question 4:");
    scanf("%c\n",&q3);
    printf("Question 5:");
    scanf("%c\n",&q4);
```

```
printf("Question 6:");
scanf("%c\n",&q5);
printf("Question 7:");
scanf("%c\n",&q6);
printf("Question 8:");
scanf("%c\n",&q7);
printf("Question 9:");
scanf("%c\n",&q8);
printf("Question 10:");
scanf("%c\n",&q9);
printf("Total");
scanf("%c",&q10);



switch(q1)
{
case 'A':
   a = 3;
   break;

case 'B':
   a = 1;
   break;

case 'C':
   a = 2;
   break;
}

switch(q2)
{
case 'A':
   b = 3;
   break;

case 'B':
   b = 1;
   break;

case 'C':
   b = 2;
   break;
```

```
}

switch(q3)
{
case 'A':
   c = 3;
   break;

case 'B':
   c = 1;
   break;

case 'C':
   c = 2;
   break;
}

switch(q4)
{
case 'A':
   d = 3;
   break;

case 'B':
   d = 1;
   break;

case 'C':
   d = 2;
   break;
}

switch(q5)
{
case 'A':
   e = 3;
   break;

case 'B':
   e = 1;
   break;

case 'C':
```

```
    e = 2;
    break;
}

switch(q6)
{
case 'A':
    f = 3;
    break;

case 'B':
    f = 1;
    break;

case 'C':
    f = 2;
    break;
}

switch(q7)
{
case 'A':
    g = 3;
    break;

case 'B':
    g = 1;
    break;

case 'C':
    g = 2;
    break;
}

switch(q8)
{
case 'A':
    h = 3;
    break;

case 'B':
    h = 1;
    break;
```

```
    case 'C':
       h = 2;
       break;
    }

    switch(q9)
    {
    case 'A':
       i = 3;
       break;

    case 'B':
       i = 1;
       break;

    case 'C':
       i = 2;
       break;
    }

    switch(q10)
    {
    case 'A':
       j = 3;
       break;

    case 'B':
       j = 1;
       break;

    case 'C':
       j = 2;
       break;
    }
     printf(" score:%d\n",a+b+c+d+e+f+g+h+i+j);
    return 0;
}

9)
# include <stdio.h>
int main(){
    int i,num,product;
```

```
   for(i=1,product=1;i<=8;++i){
      printf("Enter num%d:",i);
      scanf("%d",&num);
      if(num==0)
      {
         continue;
      }
      product*=num;
}
   printf("product=%d",product);
return 0;
}
```

10)

```
#include<stdio.h>
 int main()
{
int count=1,year_num;
float Rate;
unsigned long CurrentYr;
unsigned long NextYr;

while (count<=1)
{
   printf("Enter the initial  population: ");
   scanf("%d",&CurrentYr);
   printf("Enter the rate: ");
   scanf("%f",&Rate);

   printf("Year  Population\n");
   printf("----  ----------\n");



   if ((CurrentYr>0 && CurrentYr<10000000000) && (Rate>0 && Rate<10))
   {
      NextYr = CurrentYr;
      for(year_num=0;year_num<=25;year_num++)
      {
         NextYr = Rate * NextYr * (1-NextYr/10000000000);
         printf("%4d%12d\n",year_num,NextYr);

      }
```

```
        break;
    }

    else if ((CurrentYr < 0 || CurrentYr > 10000000000) || (Rate<0 || Rate>10))
    {
        printf("Invalid Input!");
        printf("Enter the initial  population: ");
        scanf("%d",&CurrentYr);
        printf("Enter the rate: ");
        scanf("%f",&Rate);
    }
    if ((CurrentYr>0 && CurrentYr<10000000000) && (Rate>0 && Rate<10))
    {
        NextYr = CurrentYr;

        for(year_num=0;year_num<=25;year_num++)
        {
            printf("%4d%12d\n",year_num,NextYr);
            NextYr = Rate * NextYr * (1-NextYr/100000000);


        }
        break;
    }
}
return 0;
}
```