WEEK 2 - OOJ LAB

Q3. JAVA PROGRAM

```
class lab2q3{
public static void main(String args[]){
int A[][] = new int[4][];
A[0] = new int[1];
A[1] = new int[2];
A[2] = new int[3];
A[3] = new int[4];
int i,j,k;
k=1;
for(i=0;i<4;i++){
for(j=0;j<i+1;j++){
A[i][j]=k;
k++;
}
}
for(i=0;i<4;i++){
for(j=0;j<i+1;j++){
System.out.print(A[i][j]+" ");
}
System.out.println();
}
```

```
}
}
```

OUTPUT

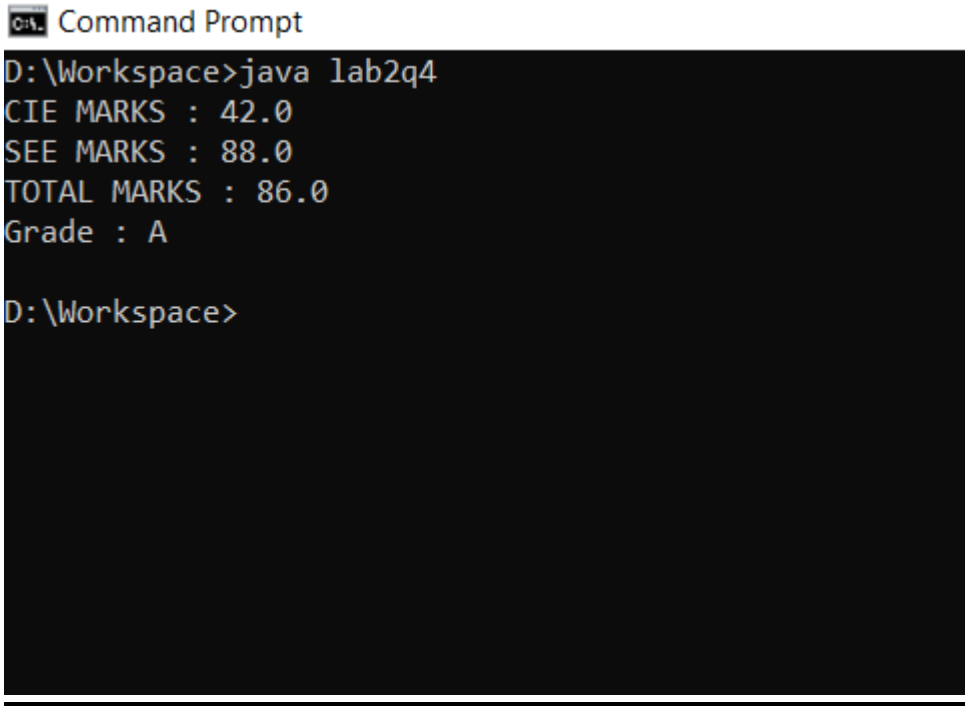
Q4. JAVA PROGRAM

```
class lab2q4{
public static void main(String args[])
{
        float cie=42,see=88,totalmarks;
        System.out.println("CIE MARKS : "+cie);
        System.out.println("SEE MARKS : "+see);
        see=see/2;
        totalmarks=cie+see;
        System.out.println("TOTAL MARKS : "+totalmarks);
```

```
if(totalmarks>=91 && totalmarks<=100)
{
        System.out.println("Grade : S");
}
else if(totalmarks>=81 && totalmarks<91)
{
        System.out.println("Grade : A");
}
else if(totalmarks>=71 && totalmarks<81)
{
        System.out.println("Grade : B");
}
else if(totalmarks>=61 && totalmarks<71)
{
        System.out.println("Grade : C");
}
else if(totalmarks>=51 && totalmarks<61)
{
        System.out.println("Grade : D");
}
else if(totalmarks>=40 && totalmarks<51)
{
        System.out.println("Grade : E");
}
else if(totalmarks>=0 && totalmarks<40)
{
```

```
            System.out.println("Grade : F");
        }

}
}
```

OUTPUT

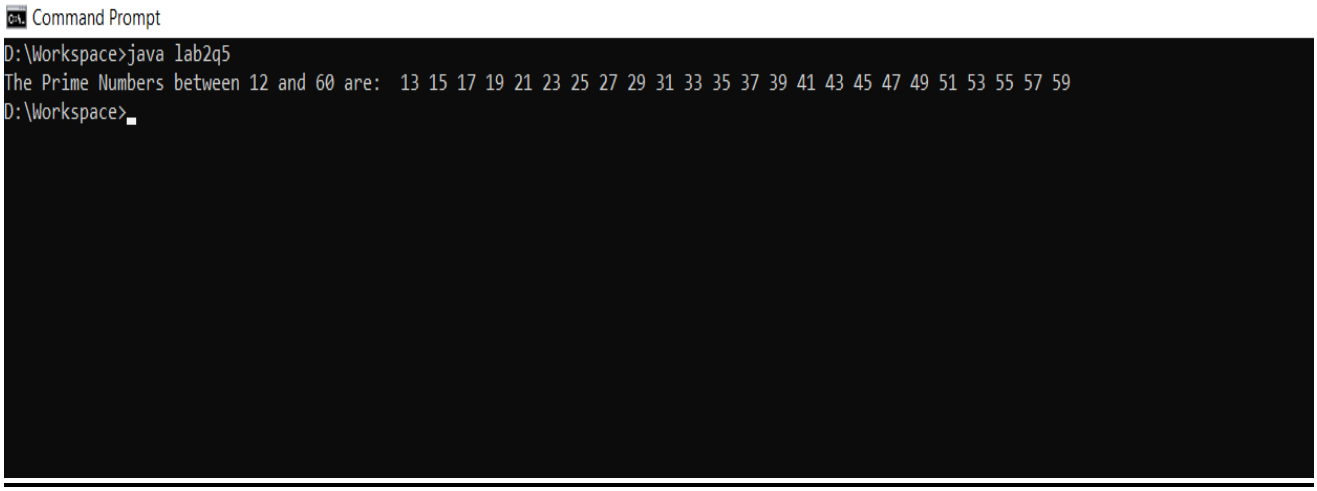


Q5. JAVA PROGRAM

```
class lab2q5{
public static void main(String args[]){
        int a=12,b=60,i,j,flag;
        System.out.print("The Prime Numbers between "+a+" and "+b+" are: ");
```

```
        for(i=a;i<=b;i++){
                flag = 1;
                for(j=2;j<=i/2;++j){
                        if(i%j == 0)
                                flag = 0;
                                break;
                }
                if(flag==1)
                        System.out.print(" "+i);
        }
}
}
```

OUTPUT



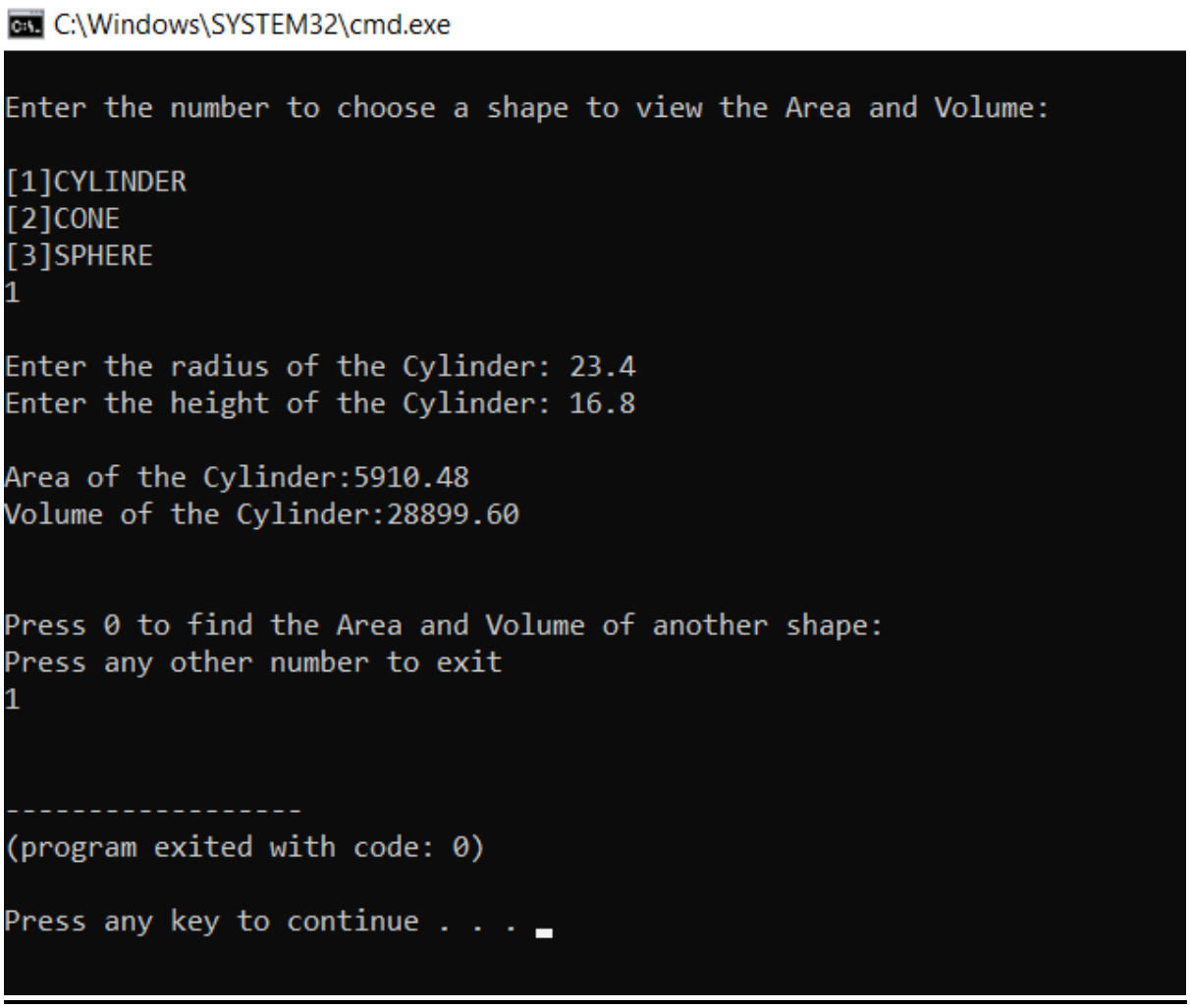
Q6. C PROGRAM

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

int main()
{
	int i,j;
	float r,h,area,vol;
	float pi=3.1416;

	while(1)
	{
		printf("\nEnter the number to choose a shape to view the Area and Volume:\n\n");

		printf("[1]CYLINDER\n");
		printf("[2]CONE\n");
		printf("[3]SPHERE\n");

		scanf("%d",&i);

		switch(i)
		{
			case 1:
```

```
        printf("\nEnter the radius of the Cylinder: ");
        scanf("%f",&r);
        printf("Enter the height of the Cylinder: ");
        scanf("%f",&h);
        area=(2*pi*r*h)+(2*pi*r*r);
        vol=pi*r*r*h;
        printf("\nArea of the Cylinder:%.2f",area);
        printf("\nVolume of the Cylinder:%.2f\n",vol);
        break;

case 2:
        printf("\nEnter the radius of the Cone: ");
        scanf("%f",&r);
        printf("Enter the height of the Cone: ");
        scanf("%f",&h);
        area=pi*r*(r+sqrt((h*h)+(r*r)));
        vol=(pi*r*r*h)/3;
        printf("\nArea of the Cone: %.2f",area);
        printf("\nVolume of the Cone: %.2f\n",vol);
        break;

case 3:
        printf("\nEnter the radius of the Sphere: ");
        scanf("%f",&r);
        area=4*pi*r*r;
        vol=(4*pi*r*r*r)/3;
```

```
                        printf("\nArea of the Sphere: %.2f",area);
                        printf("\nVolume of the Sphere: %.2f\n",vol);
                        break;
                default: printf("INVALID INPUT!!!PLEASE TRY AGAIN!!!\n");
        }

        printf("\n\nPress 0 to find the Area and Volume of another shape:\n");
        printf("Press any other number to exit\n");
        scanf("%d",&j);



        if(j!=0)
        {
                break;
        }

    }
    return 0;
}
```

OUTPUT


C:\Windows\SYSTEM32\cmd.exe
Enter the number to choose a shape to view the Area and Volume:
[1]CYLINDER
[2]CONE
[3]SPHERE
1
Enter the radius of the Cylinder: 23.4
Enter the height of the Cylinder: 16.8
Area of the Cylinder:5910.48
Volume of the Cylinder:28899.60
Press 0 to find the Area and Volume of another shape:
Press any other number to exit
1
(program exited with code: 0)
Press any key to continue . . .