DHRUV DUBEY
IBM19CS048

Q3

```
#include <stdio.h>
int main() {

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

    int num = 1;

    for(int i=0; i<n; i++) {
        for(int j=0; j<i+1; j++) {
            printf("%d", num);
            num++;
            }
            printf("\n");
    }
    return 0;
}
```

Q4

```
#include <stdio.h>
int main() {
    int cie_marks;
    int see_marks;
    float marks;

    printf("Enter CIE Marks : ");
    scanf("%d", &cie_marks);
    printf("Enter SEE marks");
    scanf("%d", &see_marks);

    marks = cie_marks + (float)(see_marks/2);
    printf("Grade Scored : ");
    if (marks >= 90) {
        printf("S\n");
    }
    else if (marks >= 80)
        printf("A\n");
    else if (marks >= 70)
        printf("B\n");
    else if (marks >= 60) {
        printf("C\n");
    else if (marks >= 50 )
        printf("D\n");
    else if (marks >= 40 )
        printf("E\n");
    else
        printf("F\n");
    return 0;
}
```

Q5

```
#include < stdio.h >
#include < math.h >
void cal_cone ( float r, float h ) {
        float a, v; // a for area, v → volume
        a = (3.14) * r * ( r + sqrt(h*h + r*r));
        v = ((3.14) *r*r*h) / 3;
        printf(" Area = %f & volume = %f", a, v );
}
void cal_cylinder (float r, float h) {
        float a, v;
        a = 2* 3.14 * r*(h+r);
        v = 3.14 *r*h;
        printf(" Area = %f , vol = %f ", a, v );
}

void cal_sphere( float r ) {
        float a, v;
        a = 4*3.14*r*r;
        v = (4*3.14*r*r*r)/3;
        printf(" Area = %f , Vol = %f ", a, v );
}
int main() {
    float radius;
    float height;
    float int choice;

    printf(" Input your selection of shape: \n");
    printf(" 1. cone \n 2. Cylinder \n 3. Sphere \n");
    scanf ("%d", & choice);
```

```
switch(choice) {
    case 1:
        printf("Enter radius & height:");
        scanf("%f", &radius);
        cal_cone(radius, height);
        break;

    case 2:
        printf("Enter radius & height");
        scanf("%f %f", &radius, &height);
        cal_cylinder(radius, height);
        break;

    case 3:
        printf("Enter radius:");
        scanf("%f", &radius);
        cal_sphere(radius);
        break;
}
return 0;
}
```

Q6

```
#include<stdio.h>
void findPrimes(int a, int b){
    int j = 2
    int flag;

    if(a == 1 || a == 0){
        a = 2;
        if(b > 2)
            printf("2 ");
    }
    for(int i = a+1; i<b; i = i+2){

    flag = 1;

    for(int j = 2; j<= i/2 ; i++j++){
        if(i%j == 0){
            flag = 0;
            break;
        }
    }
    if(flag == 1)
        printf("%d ", i);
    }
}
int main(){
    int num1, num2;
    printf("Enter both the numbers");
    scanf("%d %d", &num1, &num2);
    findPrimes(num1, num2);
    return 0;
}
```