DD Samarasinha – 24912

Practical 4

1.

```
int main()
{
//Question 1 (part 1)
 int num;

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

 if (num%2 == 0)
     printf("%d is even\n", num);
 else
     printf("%d is odd\n", num);


 //Question 1 (part 2)
 int numero, mod;

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

 mod = numero%2;

 switch (mod)
 {
     case 0:
         printf("Even\n");
         break;
     default:
         printf("Odd");
 }

}
```

2.

```c
int main()
{
    int num1, num2;
    float result;
    char op;

    printf("Enter number 1: ");
    scanf("%d", &num1);
    printf("Enter operator\n + Addition\n - Subtraction\n * Multiplication\n / Division\n: ");
    scanf(" %c", &op);
    printf("Enter number 2: ");
    scanf("%d", &num2);

    switch(op)
    {
        case '+':
            result = num1 + num2;
            break;
        case '-':
            result = num1 - num2;
            break;
        case '*':
            result = num1 * num2;
            break;
        case '/':
            result = (float)num1 / num2;
            break;
        default:
            printf("Invalid operator");
            return 0;
    }

    if (op == '/')
    {
        printf("%d %c %d = %.2f", num1, op, num2, result);
    }
    else
    {
        printf("%d %c %d = %.0f", num1, op, num2, result);
    }

    return 0;
}
```

3.

```c
int main()
{
    double pi=3.14159, r, calc;
    int cav;

    printf("Choose calculation needed\n 1) Circumference\n 2) Area\n 3) Volume\n:");
    scanf("%d", &cav);

    switch (cav)
    {
        case 1:
            printf("Enter radius: ");
            scanf("%lf", &r);
            calc = 2*pi*r;
            printf("Circumference of the circle is %.2lf", calc);
            break;
        case 2:
            printf("Enter radius: ");
            scanf("%lf", &r);
            calc = pi*(r*r);
            printf("Area of the circle is %.2lf", calc);
            break;
        case 3:
            printf("Enter radius: ");
            scanf("%lf", &r);
            calc = 4/3.0*(pi*(r*r*r));
            printf("Volume of the sphere is %.2lf", calc);
            break;
        default:
            printf("Invalid option");
            return 0;
    }
}
```

4.

```c
int main()
{
    char inp;

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

    switch(inp)
    {
        case 'a':
        case 'A':
            printf("Vowel");
            break;
        case 'e':
        case 'E':
            printf("Vowel");
            break;
        case 'i':
        case 'I':
            printf("Vowel");
            break;
        case 'o':
        case 'O':
            printf("Vowel");
            break;
        case 'u':
        case 'U':
            printf("Vowel");
            break;
        default:
            printf("Consonant");
    }

}
```

5.

```c
int main()
{
    int mon;

    printf("Enter month number: ");
    scanf("%d", &mon);

    switch(mon)
    {
        case 1:
            printf("31 days");
            break;
        case 2:
            printf("28 days");
            break;
        case 3:
            printf("31 days");
            break;
        case 4:
            printf("30 days");
            break;
        case 5:
            printf("31 days");
            break;
        case 6:
            printf("30 days");
            break;
        case 7:
            printf("31 days");
            break;
        case 8:
            printf("31 days");
            break;
        case 9:
            printf("31 days");
            break;
        case 10:
            printf("30 days");
            break;
        case 11:
            printf("30 days");
            break;
        case 12:
            printf("31 days");
    }
}
```