214189E – G.G.P.C. SENARATHNA.

<u>Function Exercises.</u>

01)

```c
#include <stdio.h>

float circleArea(float r); // user-define function.
int main() { // library function.
    float Area;
    Area = circleArea(7);
    printf("%f", Area);
}
float circleArea(float r) {
    float circleArea = 3.14159 * r * r;
    return circleArea;
}
```

02)

```c
#include <stdio.h>

float average(float x,float y,float z,float p,float q); //user-define
function.
int main() { // library function.
    float ave; // ave means average.
    ave = average(6,9,4,5,13);
    printf("%.1f", ave);
}
float average(float x,float y,float z,float p,float q) {
    float average = (x+y+z+p+q)/5;
    return average;
}
```

03)

<u>Method – 01.</u>

```c
#include <stdio.h>

int sum(int x,int y); // user-define function.
int sub(int x,int y); // "
int mul(int x,int y); // "
int div(int x,int y); // "
int mod(int x,int y); // "
int main() { // library function.
    int summation = sum(6,3);
    printf("%d\n", summation);

    int subtraction = sub(6,3);
    printf("%d\n", subtraction);
```

```c
    int multiplication = mul(6,3);
    printf("%d\n", multiplication);

    int division = div(6,3);
    printf("%d\n", division);

    int modulus = mod(6,3);
    printf("%d\n", modulus);
}
int sum(int x,int y) {
    int sum = x + y;
    return sum;
}
int sub(int x,int y) {
    int sub = x - y;
    return sub;
}
int mul(int x,int y) {
    int mul = x * y;
    return mul;
}
int div(int x,int y) {
    int div = x / y;
    return div;
}
int mod(int x,int y) {
    int mod = x % y;
    return mod;
}
```

Method – 02.

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

float calculate(float x,float y);
int main() {
    float n,m,calculation;

    printf("Input the two numbers : ");
    scanf("%f%f", &n, &m);

    calculation = calculate(n,m);
    printf("%.4f", calculation);
}
float calculate(float x,float y) {
    char op;
    printf("Input the operator : ");
    scanf(" %c", &op);

    float calculate;

    switch(op) {
        case '+':
            calculate = x + y;
```

```
            return calculate;
        case '-':
            calculate = x - y;
            return calculate;
        case '*':
            calculate = x * y;
            return calculate;
        case '/':
            calculate = x / y;
            return calculate;
        default:
            calculate = pow(x,y);
            return calculate;
    }
}
```