

## Practical 01 – Fundamentals

### **Question 01**

```
#include <stdio.h>

int main()
{
    printf("Name: Charuka Karunarathna\n");
    printf("School: Pannala National School\n");
    return 0;
}
```

### **Question 02**

```
#include <stdio.h>

int main()
{
    printf("*\n");
    printf("**\n");
    printf("***\n");
    printf("****\n");
    printf("*****\n");

    return 0;
}
```

### **Question 03**

```
#include <stdio.h>

int main()
{
    int intValue;

    float floatValue;

    double doubleValue;

    char charValue;

    printf("Enter an integer value: ");
    scanf("%d", &intValue);

    printf("Enter a float value: ");
    scanf("%f", &floatValue);

    printf("Enter a double value: ");
    scanf("%lf", &doubleValue);

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

    printf("The value of the integer is: %d\n", intValue);
    printf("The value of the float is: %.2f\n", floatValue);
    printf("The value of the double is: %.2lf\n", doubleValue);
    printf("The value of the character is: %c\n", charValue);

    return 0;
}
```

#### **Question 04**

```
#include <stdio.h>

int main()
{
    int num1, num2, total;

    printf("Enter the first integer: ");
    scanf("%d", &num1);

    printf("Enter the second integer: ");
    scanf("%d", &num2);

    total = num1 + num2;

    printf("The total is: %d\n", total);

    return 0;
}
```

#### **Question 05**

```
#include <stdio.h>

int main()
{
    float num1, num2, average;

    printf("Enter the first number with decimals: ");
    scanf("%f", &num1);

    printf("Enter the second number with decimals: ");
    scanf("%f", &num2);

    average = (num1 + num2) / 2.0;
```

```
printf("The average is: %.2f\n", average);

return 0;

}
```

### **Question 06**

```
#include <stdio.h>

int main() {
    char name[50];
    int birthYear, currentYear = 2023, age;

    printf("Enter student name: ");
    scanf("%s", name);
    printf("Enter birth year: ");
    scanf("%d", &birthYear);

    age = currentYear - birthYear;

    printf("Student Name: %s\n", name);
    printf("Age: %d\n", age);

    return 0;
}
```

### **Question 07**

```
#include <stdio.h>

int main() {

    int num1, num2, temp;

    printf("Enter the first number: ");
    scanf("%d", &num1);
    printf("Enter the second number: ");
    scanf("%d", &num2);

    printf("\nBefore swap:\n");
    printf("First number: %d\n", num1);
    printf("Second number: %d\n", num2);

    // Swap the values
    temp = num1;
    num1 = num2;
    num2 = temp;

    printf("\nAfter swap:\n");
    printf("First number: %d\n", num1);
    printf("Second number: %d\n", num2);

    return 0;
}
```

### **Question 08**

```
#include<stdio.h>
main()
{
    printf("The color: %s\n", "blue");
    printf("First number: %d\n", 12345);
    printf("Second number: %04d\n", 25);
    printf("Third number: %i\n", 1234);
    printf("Float number: %3.2f\n", 3.14159);
    printf("Hexadecimal: %x\n", 255);
    printf("Octal: %o\n", 255);
    printf("Unsigned value: %u\n", 150);
    printf("Just print the percentage sign %%\n", 10);
}
```