

DD Samarasinha – 24912

Practical 3

1.

```
int main()
{
    int num1, num2, high;

    printf("Enter number 1 and 2: ");
    scanf("%d", &num1);
    scanf("%d", &num2);

    if (num1 > num2)
        high = num1;
    else
        high = num2;

    printf("Highest number is %d", high);

    return 0;
}
```

2.

```
int main()
{
    float basicS, sales, allowance = 0, bonus = 0, gross = 0;
    char city;
    int years;

    printf("Enter basic salary: ");
    scanf("%f", &basicS);

    printf("Enter monthly sales: ");
    scanf("%f", &sales);

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

    printf("Enter number of years in service: ");
    scanf("%d", &years);

    if (sales > 0 && sales < 25000)
    {
        bonus = sales*0.1;
    }

    else if (sales >= 25000 && sales < 50000)
    {
        bonus = sales*0.12;
    }
    else if (sales >= 50000)
    {
        bonus = sales*0.15;
    }

    if (years > 5)
    {
        allowance += basicS * 0.1;
    }

    switch (city)
    {
        case 'C':
        case 'c':
            allowance += 2500;
            break;
        default:
            allowance += 0;
    }

    gross = basicS + bonus + allowance;

    printf("Gross Monthly Salary: %.2f\n", gross);
}
```

3.

```
int main()
{
    char empN[25];
    int basicS, newS;

    printf("Enter the employee name: ");
    scanf("%s", &empN);

    printf("Enter the basic salary: ");
    scanf("%d", &basicS);

    if (basicS < 5000 && basicS > 0)
    {
        newS = basicS + (basicS * 0.05);
        printf("%s has a new salary of %d\n", empN, newS);
    }
    else if (basicS >= 5000 && basicS < 10000)
    {
        newS = basicS + (basicS * 0.10);
        printf("%s has a new salary of %d\n", empN, newS);
    }
    else if (basicS >= 10000)
    {
        newS = basicS + (basicS * 0.15);
        printf("%s has a new salary of %d\n", empN, newS);
    }
    else
    {
        printf("Error");
    }
}
```

4.

```
int main()
{
    const float pi = 3.14159;
    float r;

    printf("Enter radius: ");
    scanf("%f", &r);

    printf("Diameter: %.2f\n", 2*r);
    printf("Circumference: %.2f\n", 2*pi*r);
    printf("Area: %.2f\n", pi*(r*r));
}
```

5.

```
int main()
{
    int num1, num2, mod;
    printf("Enter 2 numbers: ");
    scanf("%d %d", &num1, &num2);

    mod = num1%num2;

    if (mod==0)
    {
        printf("%d is a multiple of %d\n", num1, num2);
    }
    else
    {
        printf("%d is not a multiple of %d\n", num1, num2);
    }
}
```

6.

```
int main()
{
    printf("A: %d\n", 'A');
    printf("B: %d\n", 'B');
    printf("C: %d\n", 'C');

    printf("\n");

    printf("a: %d\n", 'a');
    printf("b: %d\n", 'b');
    printf("c: %d\n", 'c');

    printf("\n");

    printf("0: %d\n", '0');
    printf("1: %d\n", '1');
    printf("2: %d\n", '2');

    printf("\n");

    printf("$: %d\n", '$');
    printf("*: %d\n", '*');
    printf("+: %d\n", '+');
    printf("/: %d\n", '/');

    printf("blank: %d\n", ' ');
}
```

7.

```
int main()
{
    float basicS, sales, allowance = 0, bonus = 0, gross = 0;
    char city;
    int years;

    printf("Enter basic salary: ");
    scanf("%f", &basicS);

    printf("Enter monthly sales: ");
    scanf("%f", &sales);

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

    printf("Enter number of years in service: ");
    scanf("%d", &years);

    if (sales > 0 && sales < 25000)
    {
        bonus = sales*0.1;
    }

    else if (sales >= 25000 && sales < 50000)
    {
        bonus = sales*0.12;
    }
    else if (sales >= 50000)
    {
        bonus = sales*0.15;
    }

    if (years > 5)
    {
        allowance += basicS * 0.1;
    }

    switch (city)
    {
        case 'C':
        case 'c':
            allowance += 2500;
            break;
        default:
            allowance += 0;
    }

    gross = basicS + bonus + allowance;

    printf("Gross Monthly Salary: %.2f\n", gross);
}
```