Practical 03

1.

```
#include <stdio.h>

int main() {
    int num1, num2;

    printf("Enter two numbers: ");
    scanf("%d %d", &num1, &num2);

    if (num1 > num2) {
        printf("The highest number is: %d\n", num1);
    } else if (num2 > num1) {
        printf("The highest number is: %d\n", num2);
    } else {
        printf("Both numbers are equal.\n");
    }

    return 0;
}
```

2.

```
#include <stdio.h>

int main() {
    int num1, num2, num3;

    printf("Enter three numbers: ");
    scanf("%d %d %d", &num1, &num2, &num3);

    int largest = num1;
    int smallest = num1;

    if (num2 > largest) {
        largest = num2;
```

```
    }
    if (num3 > largest) {
        largest = num3;
    }

    if (num2 < smallest) {
        smallest = num2;
    }
    if (num3 < smallest) {
        smallest = num3;
    }

    printf("Largest number: %d\n", largest);
    printf("Smallest number: %d\n", smallest);

    return 0;
}
```

3.

```
#include <stdio.h>

int main() {
    char employeeName[100];
    double basicSalary, increment, newSalary;

    printf("Enter employee name: ");
    scanf("%s", employeeName);

    printf("Enter basic salary: ");
    scanf("%lf", &basicSalary);

    if (basicSalary < 5000) {
        increment = 0.05 * basicSalary;
    } else if (basicSalary < 10000) {
        increment = 0.10 * basicSalary;
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    } else {
        increment = 0.15 * basicSalary;
    }

    newSalary = basicSalary + increment;

    printf("Employee Name: %s\n", employeeName);
    printf("New Salary: %.2lf\n", newSalary);

    return 0;
}
```

4.

```
#include <stdio.h>

#define PI 3.14159

int main() {
    double radius;

    printf("Enter the radius of the circle: ");
    scanf("%lf", &radius);

    double diameter = 2 * radius;
    double circumference = 2 * PI * radius;
    double area = PI * radius * radius;

    printf("Diameter: %f\n", diameter);
    printf("Circumference: %f\n", circumference);
    printf("Area: %f\n", area);

    return 0;
}
```

5.

```
#include <stdio.h>

int main() {
    int num1, num2;

    printf("Enter two integers: ");
    scanf("%d %d", &num1, &num2);

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

    return 0;
}
```

6.

```
#include <stdio.h>

int main() {
    printf("Integer equivalents of characters:\n");
    printf("Uppercase letters: A=%d, B=%d, C=%d\n", 'A', 'B', 'C');
    printf("Lowercase letters: a=%d, b=%d, c=%d\n", 'a', 'b', 'c');
    printf("Digits: 0=%d, 1=%d, 2=%d\n", '0', '1', '2');
    printf("Special symbols: $=%d, *=%d, +=%d, /=%d\n", '$', '*', '+',
'/');
    printf("Blank character: %d\n", ' ');

    return 0;
}
```

7.

```
#include <stdio.h>

int main() {
    double basicSalary;
    int yearsOfService;
    char city;
    double monthlySales;
    double additionalAllowance = 0.0;
    double bonus = 0.0;
    double grossRemuneration;

    printf("Enter basic salary: ");
    scanf("%lf", &basicSalary);

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

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

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

    if (yearsOfService > 5) {
        additionalAllowance = 0.1 * basicSalary;
    }

    if (city == 'C') {
        additionalAllowance += 2500;
    }

    if (monthlySales >= 0 && monthlySales <= 25000) {
        bonus = 0.1 * monthlySales;
    } else if (monthlySales > 25000 && monthlySales <= 50000) {
        bonus = 0.12 * monthlySales;
```

```
    } else if (monthlySales > 50000) {
        bonus = 0.15 * monthlySales;
    }

    grossRemuneration = basicSalary + additionalAllowance + bonus;

    printf("Gross Monthly Remuneration: %.2lf\n",
grossRemuneration);

    return 0;
}
```