

Programming Exercise

Exercise 1:

```
#include <stdio.h>

void main()
{
    int num1, num2;
    printf("Enter first number: ");
    scanf("%d", &num1);
    printf("Enter second number: ");
    scanf("%d", &num2);
    if(num1%num2==0)
        printf("First integer is a factor of the second.");
    else
        printf("First integer is not a factor of the second.");
}
```

Exercise 2:

```
#include <stdio.h>

void main()
{
    int num;
    printf("Enter any number: ");
    scanf("%d", &num);
    if(num%3==0 && num%10==5)
    {
        printf("YES");
    }
}
```

Exercise 3:

```
#include <stdio.h>

void main()
{
    float bill, discount, disprice;
    printf("Enter the total bill: ");
    scanf("%f", &bill);
    if(bill > 0 && bill <= 1000)
    {
        discount = bill * 0.1;
        disprice = bill - discount;
        printf("discount=%f", discount);
        printf("bill after discount=%f", disprice);
    }
}
```

```

    }
    else if (bill > 1000 && bill <= 2500)
    {
        discount = bill * 0.2;
        disprice = bill - discount;
        printf("discount=%f", discount);
        printf("bill after discount=%f", disprice);
    }
    else if (bill > 2500 && bill <= 5000)
    {
        discount = bill * 0.35;
        disprice = bill - discount;
        printf("discount=%f", discount);
        printf("bill after discount=%f", disprice);
    }
    else if (bill > 5000 && bill <= 10000)
    {
        discount = bill * 0.5;
        disprice = bill - discount;
        printf("discount=%f", discount);
        printf("bill after discount=%f", disprice);
    }
}

```

Exercise 4:

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

```
void main()
```

```

    int origPrice, salePrice, result;
    float percentage;
    printf("Enter the original price of a product : ");
    scanf("%d", &origPrice);
    printf("Enter selling price of a product : ");
    scanf("%d", &salePrice);
    if (origPrice > salePrice)
    {
        printf("Loss = %d%%", ((origPrice - salePrice) * 100) / origPrice);
    }
    else if (salePrice > origPrice)
    {
        printf("Profit = %d%%", ((salePrice - origPrice) * 100) / origPrice);
    }
    else
    {
        printf("No Profit and No Loss\n");
    }
}

```

Exercise 5:

```

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

```

void main()

```
float hyp, base, height, h;
printf("Enter the hypotaneuse: ");
scanf("%f", &hyp);
printf("Enter the base: ");
scanf("%f", &base);
printf("Enter the height: ");
scanf("%f", &height);
h = sqrt((base * base) + (height * height));
if(hyp == h)
    printf("It is right angled triangle");
else
    printf("It is not right angled triangle");
```

Exercise 6:

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

```
void main()
```

```
{
    int matric, inter, test;
    float m, i, t;
    printf("Enter your marks obtained in Matric:");
    scanf("%d", &matric);
    printf("Enter your marks obtained in Intermediate:");
    scanf("%d", &inter);
    printf("Enter your marks obtained in Entrance Test:");
    scanf("%d", &test);
    m=(60.0/100)*1100;
    i=(65.0/100)*1100;
    t=(65.0/100)*100;
    if(matric>=m && inter>=i && test>=t)
        printf("You are eligible for admission in IT University.");
    else
        printf("You are not eligible for admission in IT University.");
}
```

Exercise 7:

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

```
void main()
```

```
{
    int salary, experience, bonusTask;
    printf("Enter your salary: ");
    scanf("%d", &salary);
    printf("Enter your experience: ");
    scanf("%d", &experience);
    printf("Enter your number of bonus tasks: ");
    scanf("%d", &bonusTask);
    if(salary == 10000 && experience == 2 && bonusTask == 5)
    {
        printf("You have got 1500 Bonus.");
    }
}
```

```
else if(salary == 10000 && experience == 3 && bonusTask == 10)
{
    printf("You have got 2500 Bonus.");
}
else if(salary == 25000 && experience == 3 && bonusTask == 4)
{
    printf("You have got 2000 Bonus.");
}
else if(salary == 75000 && experience == 4 && bonusTask == 7)
{
    printf("You have got 3500 Bonus.");
}
else if(salary == 100000 && experience == 5 && bonusTask == 10)
{
    printf("You have got 5000 Bonus.");
}
else
    printf("You have got no Bonus.");
```