1. Find the output of the following code:

a) 18 b) 52 c) 90 d) 17

```
age = int(input("Enter your age: "))

score = float(input("Enter your test score: "))

if age >= 18:
    if score >= 75:
        print("Eligibility: Eligible for admission")
    else:
        if score >= 50:
            print("Eligibility: Provisionally eligible for admission")
        else:
            print("Eligibility: Not eligible for admission")
else:
    if age >= 16:
        if score >= 85:
            print("Eligibility: Eligible for special admission program")
        else:
            print("Eligibility: Not eligible for admission")
    else:
        print("Eligibility: Not eligible due to age")
```

2. Find the output of the following code:

a) 35 b) 40 c) 20 d) 35

```
temperature = float(input("Enter your body temperature in
Celsius: "))

if temperature >= 38:
    print("Condition: Fever")
else:
    if temperature >= 37:
        print("Condition: Slightly Elevated")
    else:
        if temperature >= 36:
            print("Condition: Normal")
        else:
            if temperature >= 35:
                print("Condition: Low")
            else:
                print("Condition: Hypothermia")
```

3. Write a Python program that takes an integer input from the user and determines whether the number is even or odd and whether it is positive, negative, or zero

4. A company decides to give an increment to its employees based on their current salary. An employee having a current salary less than 20,000 will get an increase of 15%. If the employee's salary is more than 20,000 and less than 50,000, s/he will get an increment of 10%. The employees with a salary between 50,0000 and 70,000 will get an increment of 8%; if the current salary is more than 70,000, the salary will be incremented by 5%. Write a program in python to take the current salary as input and calculate the updated salary after the increment. **Remember the salary cannot be less than 10,000 and more than 200,000. In those cases, you should print an appropriate message.**

5. Write a Python program to simulate a bookstore where customers can buy books with specific discounts applied based on the book's category. The program should take the original price of the book and its category as inputs and then calculate the final price after applying the discount. The discounts are as follows:

Fiction books receive a 10% discount.

Non-fiction books receive a 15% discount.

Educational books receive a 20% discount.

Comics receive a 5% discount.

The program should handle the following requirements:

- The price of the book cannot be less than 5 Tk or more than 500 Tk. If the price is outside this range, print an appropriate message.
- If an invalid category is entered, print a message indicating the category is invalid.
- The program should output the final price of the book after applying the appropriate discount.