1. **Develop a simple calculator program that performs basic arithmetic operations (+, -, *, /) on two numbers provided by the user. The program should ask the user for the numbers and the operator. However, the program should handle the following exceptions.**

```
def simple_calculator():
    try:
        num1 = float(input("Enter the first number: "))
        num2 = float(input("Enter the second number: "))
    except ValueError:
        print("Error: Invalid number entered. Please enter numeric values.")
        return

    # Get user input for the operator
    operator = input("Enter an operator (+, -, *, /): ")

    # Perform the operation and handle exceptions
    try:
        if operator == '+':
            result = num1 + num2
        elif operator == '-':
            result = num1 - num2
        elif operator == '*':
            result = num1 * num2
        elif operator == '/':
            if num2 == 0:
                raise ZeroDivisionError
            result = num1 / num2
        else:
            raise ValueError("Invalid operator")
    except ZeroDivisionError:
        print("Error: Division by zero is not allowed.")
        return
    except ValueError as ve:
        print(f"Error: {ve}")
        return
    else:
        print(f"Result: {num1} {operator} {num2} = {result}")

simple_calculator()
```

2. **Create class television that has members to hold the model number ,screen size and price. Take a member function to take input from user, If more than 4 digits are entered for model number, if screen size is smaller than 12 inches or greater than 70 inches or if the price is negative or greater than 5000 Rs, then throw an exception.**

```
class Television:
    def __init__(self):
        self.model_number = 0
        self.screen_size = 0
        self.price = 0

    def input_data(self):
        try:
            model = int(input("Enter model number (up to 4 digits): "))
            if model > 9999:
                raise Exception("Model number too long!")

            size = int(input("Enter screen size (12-70 inches): "))
            if size < 12 or size > 70:
                raise Exception("Invalid screen size!")

            price = float(input("Enter price (0-5000 Rs): "))
            if price < 0 or price > 5000:
                raise Exception("Invalid price!")

            self.model_number = model
            self.screen_size = size
            self.price = price

        except Exception as e:
            print("Error:", e)
            print("Setting all values to 0.")
            self.model_number = 0
            self.screen_size = 0
            self.price = 0
```

```
    def display(self):
        print("Model Number:", self.model_number)
        print("Screen Size:", self.screen_size)
        print("Price: Rs", self.price)

tv = Television()
tv.input_data()
tv.display()
```