**Amity University**

**Assignment#4**

**Test Cases Based Question on Black Box Testing**

**Scenario:**

A banking application provides a login functionality. The system requires the following inputs:

1. **Username:**
   * Must be alphanumeric.
   * Length: 6–12 characters.
2. **Password:**
   * Must contain at least one uppercase letter, one lowercase letter, one number, and one special character.
   * Length: 8–16 characters.
3. **CAPTCHA Code:**
   * A 5-digit numeric code displayed to the user.

**Question:**

Design test cases for the login functionality using **Black Box Testing** techniques, such as **Boundary Value Analysis (BVA)** and **Equivalence Partitioning (EP)**.

**Scenario: ATM Withdrawal Functionality**

An ATM allows users to withdraw money under the following conditions:

1. The withdrawal amount must be a multiple of 100.
2. The withdrawal amount must not exceed the daily withdrawal limit of ₹20,000.
3. The withdrawal amount must not exceed the account balance.
4. The ATM dispenses only ₹100, ₹500, and ₹2000 denominations.

**Question:**

Design test cases using **Equivalence Partitioning (EP)** and **Boundary Value Analysis (BVA)** for the ATM withdrawal functionality.

Que  **How would you test the system for edge cases such as zero balance or ATM cash unavailability?**

 Que **What are the limitations of using Black Box Testing in this scenario?**

**Que Given the following pseudocode:**

text

Copy code

1. Start

2. Input A, B

3. If A > B then

4. Print "A is greater"

5. Else

6. If A == B then

7. Print "A is equal to B"

8. Else

9. Print "B is greater"

10. End If

11. End If

12. End

1. **Calculate the Cyclomatic Complexity (CC)** of the given code.
2. **Identify the independent paths** in the code.
3. **Explain the significance of Cyclomatic Complexity in testing.**