Q2:

1. Statements

1 test case
Start → A → B → C → D → End

2. Decisions (branches)

2 test cases
Start → A → B → C → D → End
Start → A → C → End

3. Paths

4 test cases
Start → A → B → C → D → End
Start → A → B → C → End
Start → A → C → D → End
Start → A → C → End

Q3:

Decision Base Table:

Conditions	Rule 1 Rule 2 Rule 3 Rule 4
Email	T T F F
Password	T F T F
Actions(Log in successfully)	Yes No No No

T: Correct email / Correct password
F: Wrong email / Wrong password
Yes: Successful login and redirect to home page
**No: Login failed and displays an error message**

Happy scenario:

1- Enter the correct email and the correct password and click on login, successful login and redirect to the home page.

2- Enter correct email and wrong password and click on login, login failed and displays an error message.
3- Enter the wrong email and correct password and click on login, login failed and displays an error message.
4- Enter the wrong email and wrong password and click on login, login failed and displays an error message.

Q4:

1. Boundary Value specification will be:
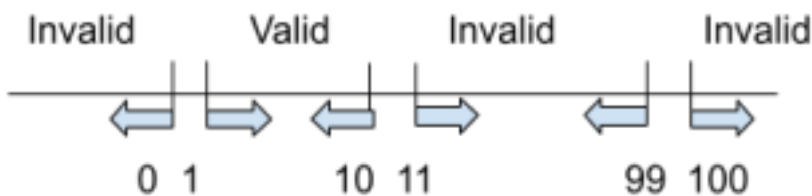
Boundary Values: 0, 1, 10, 11, 99, 100

0 1 2 9 10 11 12 98 99 100

1 2 9 10 → Valid Values → A success message is shown.

0 11 12 98 99 100 → Invalid Values → An error message will appear, "Only 10 Pizza can be ordered"

2. And Equivalence Partitions will be:

1. Equivalence partition 1: 1 > Pizza values /// Less than 1 /// **Invalid**
2. Equivalence partition 2: 1 ≤ Pizza values ≤ 10 /// 1 → 10 /// **Valid**
3. Equivalence partition 3: 10 < Pizza values ≤ 99 /// 11 → 99 /// **Invalid**
4. Equivalence partition 4: 99 < Pizza values /// More than 99 /// **Invalid**

Then we select one test case from each partition:
Partition 1 → -3 → **Invalid**
Partition 2 → 7 → **Valid**

Partition 3 → 40 → **Invalid**
Partition 4 → 110 → **Invalid**

Q5:

Control flow graph: