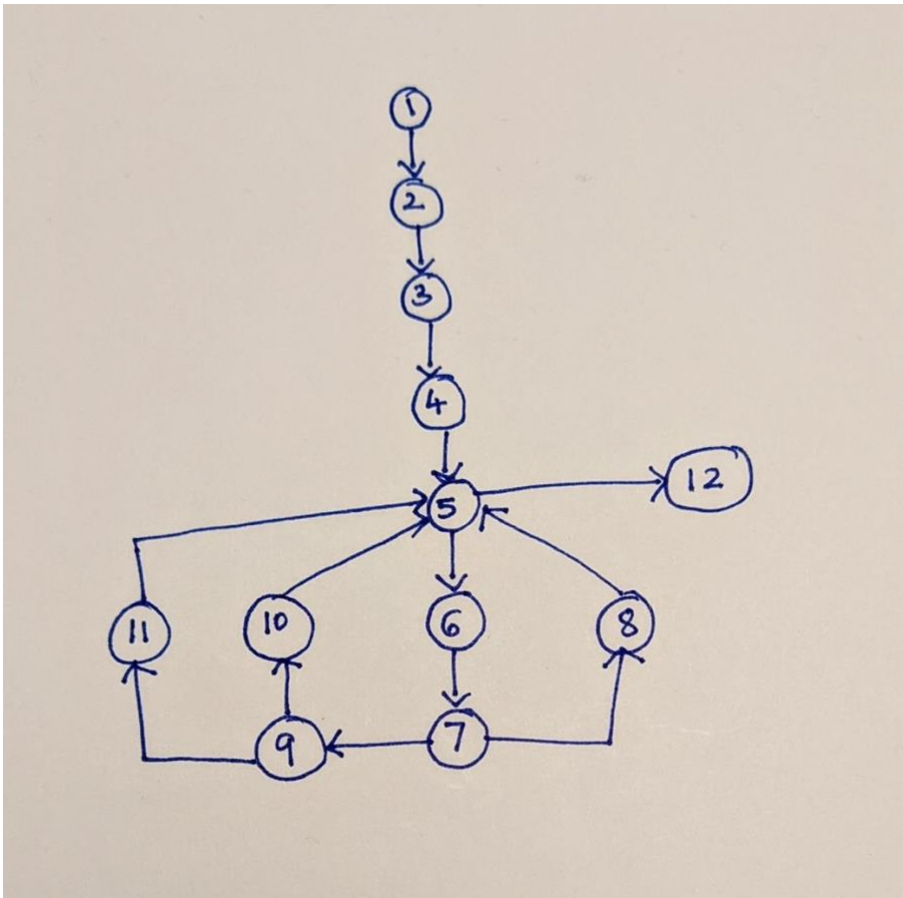Question 3:

Solution

    a. Array = { 1,2,3,4,5}, search value = 2

    b. 1-2-3-4-5-6-7-9-10-5-6-7-9-11-5-6-7-8-5-12

    c.

    d. e = 14, n = 12, p = 1

       V(G) = e-n+p = 14 − 12 + 1 = 3

       CV(G) = V(G) + 1 = 3 + 1 = 4

       S = { 1-2-3-4-5-12, 5-6-7-8-5, 7-9-10-5, 9-11-5 }

Question 4:

UNIT TEST

Section	Description
Test Scenario ID	TS1
Test Scenario	Log In
Test Case ID	TC1
Test Case	Verify Username
Pre-Condition	Login page is up and running
Instructions (Steps)	1. User goes to the login page 2. User gives username = "Archana" 3. User gives password = "" 4. User clicks on the login button
Expected output	The system displays " Please enter your password"

Section	Description
Test Scenario ID	TS1
Test Scenario	Log In
Test Case ID	TC2
Test Case	Verify Username
Pre-Condition	Login page is up and running
Instructions (Steps)	1. User goes to the login page 2. User gives username = "" 3. User gives password = "123" 4. User clicks on the login button
Expected output	The system displays " Please enter your username"

Section	Description
Test Scenario ID	TS1
Test Scenario	Log In
Test Case ID	TC2
Test Case	Verify Username
Pre-Condition	Login page is up and running
Instructions (Steps)	1. User goes to the login page 2. User gives username = "Archana" 3. User gives password = "" 4. User clicks on the login button

Expected output	The system displays " Please enter your password"

Integration Test

Section	Description
Test Scenario ID	TS1
Test Scenario	Log In
Test Case ID	TC3
Test Case	User Authentication
Pre-Condition	The login page is up and running
Instructions (Steps)	1. User gives a valid username = "Ana" and invalid password = "12" 2. User clicks on the login button 3. System verifies the username on the database but cannot verify the password given
Expected output	The system should display "Invalid username or password"

System Test

Section	Description
Test Scenario ID	TS2
Test Scenario	Transfer Funds
Test Case ID	TC4
Test Case	Verify Transfer
Pre-Condition	The user logged and has the available balance
Instructions (Steps)	1. User gives a valid destination account = "Zack" 2. User gives a valid amount to be transferred 3. User clicks on the transfer button 4. System verifies that the destination account is valid 5. System verifies that the user has sufficient funds for the transfer 6. System makes the transfer
Expected output	The system should display "Transfer is successful"