

Assignment # 1

Due Date: 12/11/2024

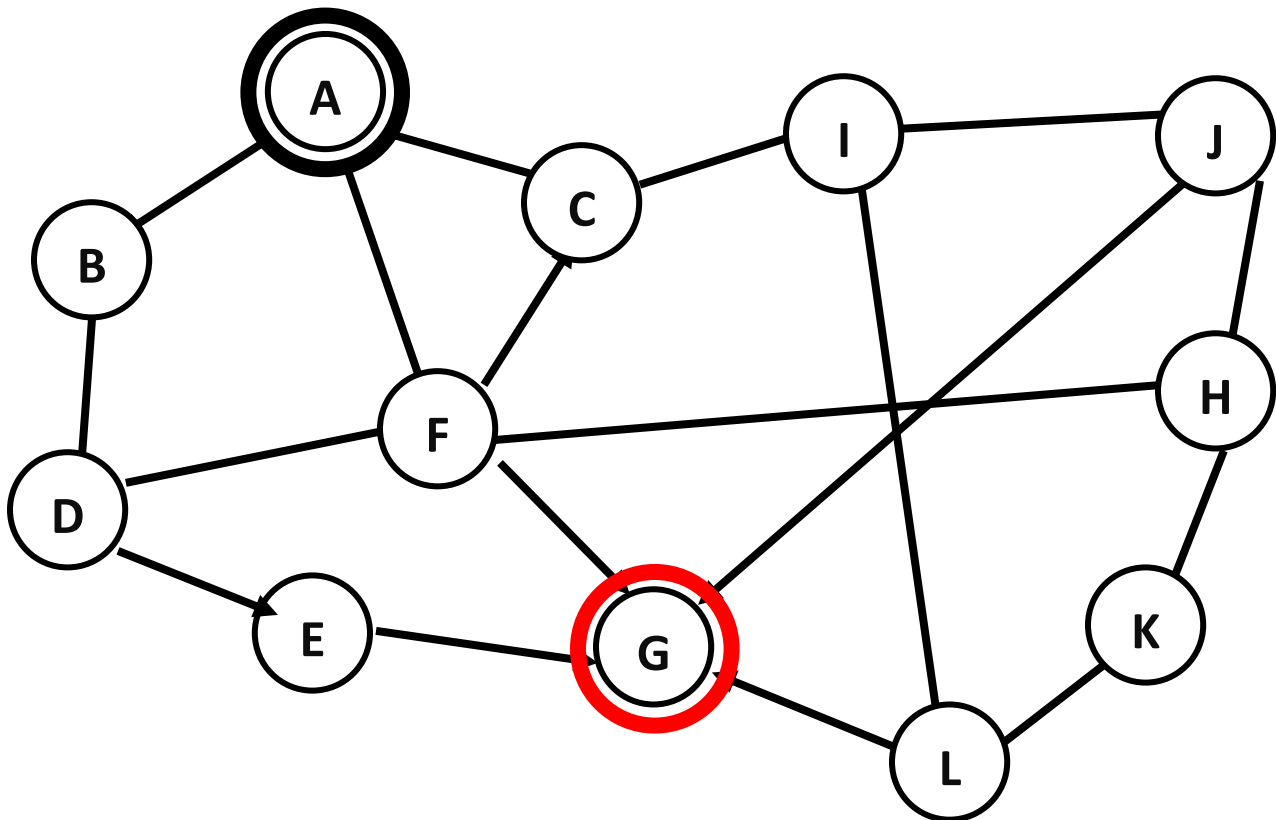
Maximum Points: 100

Section: BSCS (A,B) 3, BSSE 3

Note: Plagiarism will lead to zero marks in all the assignments. Late submissions will not be accepted in any case.

Q1: Converting a given graph into a tree structure

- After conversion find
 - Level of tree.
 - Depth of tree
 - Height of tree
 - Maximum number of nodes
- How many paths are existed for move from A to G?



Q2: Apply Breath First Search and Depth First Search on following tree situation

- **Use your full name + last 4 digit of your arid number like For Example: Asad Ali 8667**
- **Branch Factor = if total number of characters of “Asad+Ali+8667” is equal to even than branch factor will be 2 otherwise 3. In given Asad+Ali+8667 total number of character = 13 so Branch factor will be 3**
- **Strating state in given cause will be A and goal state will be 7.**
- **So must be careful when you declare your tree string**
- **Solve Breath First Search and Depth First separately and visualize status of state change through Queue and Stack respectively**
 - **Level of tree.**
 - **Depth of tree**
 - **Height of tree**
 - **Maximum number of nodes**

😊 *Happy Learning* 😊