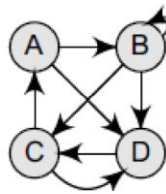# ATDs and Algorithms CAT 1

Jan 6, 2025

Due 9th Jan 2025. Send to: muliaro@icsit.jkuat.ac.ke

1. Describe the structure of a node in a singly linked list. [4 mks]
2. Create a queue using two stacks   [6mks]
3. Assign linked list or queue or stack data structure that is most appropriate and why, for the following operations:
   i) Traversing in reverse order
   ii) Ensuring first-in-first-out processing
   iii)   Tracking function calls in recursion [6mks]
4. Write the Adjacency matrix for the following graph [4mks]

5. Describe using an example how a node can be deleted after a given node in a linked list. [6 mks]

------------------------------END……………………………………………….