

Code No: 157EK

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, February/March - 2022

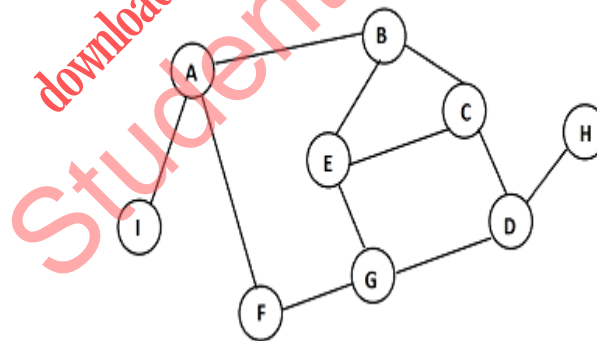
DATA STRUCTURES
(Common to CE, ME, ECE)

Time: 3 Hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

1. Write a program to find the addition of two polynomials using linked list. [15]
- 2.a) Explain the operations of Queue with an example.
b) Write an algorithm to delete an element from queue by using linked representation. [7+8]
- 3.a) Explain the different types of hash functions with an example.
b) Explain about quadratic probing and linear probing with example. [8+7]
4. Insert the following list of elements by using double hashing (size of hash table is 5).
52, 34, 62, 48, 45, 31, 40, 53, 37, 32 [15]
5. Construct the AVL tree of the list of elements [15]
56, 89, 90, 22, 34, 46, 18, 25, 10, 85
6. Write an algorithm to insert and delete an element from Binary Search Tree. [15]
7. Find the BFS and DFS of the following graph [15]



8. Consider the following text T and pattern P.
T = EIUHIWABNQLSZNROBMC
P = NQLSZN
Write and apply the Boyer Moore algorithm and also illustrate the intermediate steps. [15]

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