

Code No: 153AK**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech II Year I Semester Examinations, March - 2021****DATA STRUCTURES****(Common to CSE, IT, ITE)****Time: 3 hours****Max. Marks: 75****Answer any five questions****All questions carry equal marks****- - -**

- 1.a) Discuss in brief about single linked list.
- b) Write a C program to convert infix to postfix expression. [7+8]
2. What are different methods of collision resolution in hashing? Explain in brief. [15]
- 3.a) Discuss in detail about red-black trees.
- b) Explain briefly about binary search trees. [7+8]
4. How a graph is traversed using depth first search? Explain with example. [15]
5. Explain the process of heap sort with example. [15]
6. Explain in brief about tries with example. [15]
7. Compare and contrast different sorting methods. [15]
8. Explain in detail about skip lists in data structures. [15]

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