**R18**

**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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