

**R18**

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**

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- 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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