

Register Number :

Name of the Candidate :

**1 2 7 0**

**B.Sc. DEGREE EXAMINATION, 2010**

( COMPUTER SCIENCE )

( FIRST YEAR )

( PART - III )

( PAPER - III )

**551 /540 / 150. DATA STRUCTURES AND  
ALGORITHMS**

*( Common to New & Revised Regulations,  
Double Degree and B.C.A. -  
New Regulations )*

May ]

[ Time : 3 Hours

Maximum : 100 Marks

*Answer any FIVE questions.*

*All questions carry equal marks.*

**Turn Over**

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1. Define stack. Discuss the various operations of stack with suitable algorithms and examples. (20)
2. Describe in detail about the conversion of in-fix expression into post-fix expression with an example. (20)
3. Define queue. Explain the various operations of queue with suitable algorithms and examples. (20)
4. Discuss the various operations and applications of linked list with algorithm and example. (20)
5. Explain about
  - (a) List structures. (10)
  - (b) Simulation. (10)
6. Explain the various operations and applications of binary trees. (20)

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7. Discuss the following :
  - (a) Selection sort. (10)
  - (b) Radix sort. (10)
8. Describe in detail about basic search techniques and hashing with example. (20)