

**Code No: 51006****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech I Year Examinations, May/June - 2019****COMPUTER PROGRAMMING AND DATA STRUCTURES****(Common to CE, EEE, ME, ECE, CSE, CHEM, IT, AE, BT, AME, MIE)****Time: 3 hours****Max. Marks: 75**

**Answer any five questions**  
**All questions carry equal marks**

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- 1.a) What is an algorithm? Write an algorithm for finding biggest number among three numbers.
- b) Explain about software development method. [8+7]
- 2.a) What is a Variable? Explain the rules for declaring a variable.
- b) Explain the selection statements if and switch with example. [7+8]
3. What is a function? Discuss user defined functions with example. [15]
- 4.a) Explain call by value and pass by reference with suitable example.
- b) What is String? Explain string handling functions with example. [7+8]
- 5.a) Explain enumerated types.
- b) What is a Union? Explain the differences between Structures and Unions. [7+8]
- 6.a) What is a file? Explain different file operation with syntax.
- b) Write a C program to open a pre-existing file and add information at the end of the file. Display the contents of the file before and after appending. [7+8]
- 7.a) What is sorting? Explain Quick sort algorithm with example.
- b) What is a linear search? Write a C program to find an element using linear search. [8+7]
- 8.a) Explain the role of stack in expression evaluation.
- b) Give the linked list representation of queue data structure. [7+8]

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