

R09

Code No: 51006

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech I Year Examinations, October/November - 2016

COMPUTER PROGRAMMING AND DATA STRUCTURES

(Common to CE, EEE, ME, ECE, CSE, EIE, IT, ETM, MMT, AE, BT, AME, MIE, PTE)

Time: 3 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

- 1.a) Differentiate between compiler and interpreter.
- b) Explain the phases in software development method.
- c) Give an algorithm to find biggest among given three numbers A, B, C. [5+5+5]

- 2.a) Discuss the concept of operator precedence and associativity.
- b) Explain various bit wise operators with suitable C program. [8+7]

- 3.a) What are the storage classes? Give example for each.
- b) Give the parameter passing techniques for functions.
- c) Write a program to find the sum of the diagonal elements of a given square matrix. [4+5+6]

- 4.a) With examples explain pointer arithmetic operations.
- b) Explain the usage of any four string manipulation functions of 'C'. [7+8]

- 5.a) Compare and contrast structure and union.
- b) Explain enumeration as a derived data type.
- c) Give an example of self-referential structure. [5+5+5]

- 6.a) Differentiate between text file and binary file.
- b) List the positioning functions utilized in file handling. [7+8]

- 7.a) Sort the following elements using selection sort and analyze the process.
45 78 96 35 21 19 73 29
- b) Write the algorithm for binary search and explain the approach. [7+8]

- 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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