

Code No: 111AF

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B.Tech I Year Examinations, June - 2014

COMPUTER PROGRAMMING

(Common to all Branches)

Time: 3 hours

Max. Marks: 75

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART- A**

- 1.a) Distinguish between variables and constants. [2m]
- b) What is inter function communication? [3m]
- c) Write brief notes on memory allocation functions. [2m]
- d) Discuss about bit fields. [3m]
- e) Describe the dequeue operations. [2m]
- f) Discuss briefly about goto statement. [3m]
- g) Write the array applications. [2m]
- h) Describe arrays of strings. [3m]
- i) Write brief notes on unions. [2m]
- j) Explain binary search. [3m]

**PART- B**

2. State and explain various identifiers in C program. And also discuss about operator precedence in expression evaluation with a suitable example.

**OR**

3. Explain with a sample program about while, for, do-while and switch statements in C programming.

4. What are type qualifiers? Write recursive and iterative approaches programs to find factorial of a given number.

**OR**

5. What are type qualifiers in a C program? And write a C program to find product of two  $n \times n$  matrices.

6. Explain pointer arithmetic. Discuss with a suitable example how to pass an array to a function.

**OR**

7. Discuss various applications of pointers. State and explain with a sample program various string manipulation functions.

8. Explain about declaration, initialization and accessing of structures. And also discuss about complex structures.

**OR**

9. What are file streams? Discuss about state of file, opening and closing file with a sample C program.

10. Explain selection sort and bubble sort with a suitable example.

**OR**

11. What are searching operations on linear lists? Explain the singly linked list implementation.

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