

**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**

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|------|---|------|
| 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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