

**R16**

Code No: 131AD

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech I Year I Semester Examinations, December - 2016

COMPUTER PROGRAMMING IN C

(Common to CE, ME, MCT, MMT, MIE, CEE, MSNT)

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**

(25 Marks)

- 1.a) Define the term algorithm and how it is different from a flow chart. [2]
- b) Distinguish between if and switch statements. [3]
- c) Explain auto and register storage classes. [2]
- d) What is meant by type qualifier? [3]
- e) What is meant by array of pointers? When it will be useful? [2]
- f) Distinguish between string and character. [3]
- g) Explain how to define a union. [2]
- h) Explain the concept of enumerated type. [3]
- i) What is meant by a text file? [2]
- j) Discuss about rewind function? [3]

**PART-B**

(50 Marks)

2. Write a C program to find factorial of a given number N by using 'while' loop and 'do-while' loop. [10]

**OR**

3. What are the C operators? Explain their usage with suitable examples to each of them. [10]

- 4.a) Distinguish between iteration and recursion.

- b) What is meant by user defined functions? Explain with an example C Program. [5+5]

**OR**

- 5.a) Explain the binary search method.

- b) Perform bubble sort of the following numbers:

20, 5, 30, 10, 65, 3, 90

[5+5]

- 6.a) What are the advantages and drawbacks of pointers?

- b) With a sample C program and explain about passing an array to a function. [5+5]

**OR**

7. What are the string manipulation functions? Explain their usage. [10]

8. Explain about self referential structures with a sample C program. [10]

**OR**

9.a) Discuss the significance of preprocessor commands.

b) Explain about nested structures. [5+5]

10. What is meant by state of a file? Write a C program to copy the contents of one text file to another text file. [10]

**OR**

11. What is meant by binary file? Discuss about file positioning functions? [10]

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