

**R16**

Code No: 132AD

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B.Tech I Year II Semester Examinations, August - 2018

COMPUTER PROGRAMMING IN C

(Common to EEE, ECE, CSE, EIE, IT, ETM)

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) Give octal number for  $10001011_2$ . [2]
- b) Explain different primary data types used in C language. [3]
- c) Define binary search. How it different from linear search? [2]
- d) Write a function that checks whether a given year is leap year or not. [3]
- e) List any four string manipulation functions? [2]
- f) Comment on the size of pointer to different datatypes (int \*, char \*, float \*). [3]
- g) What do you mean by command line arguments? [2]
- h) Differentiate between structure and union. [3]
- i) Discuss about ftell() function. [2]
- j) What is meant by flushing of a file? [3]

**PART-B****(50 Marks)**

2. Write a C program that reverses a number that is entered by the user by making use of do-while loop. How is this looping technique different from while loop? [10]

**OR**

- 3.a) What is an Identifier? List the rules required to form variable names in C.
- b) Write a program showing the use of if else and switch statements in C? [5+5]

4. Write a program to check whether an array is ordered. If ordered print a suitable message as "Ascending" or "Descending". Otherwise "not ordered". [10]

**OR**

5. What do you mean by recursion? What conditions should be mandatory for writing a recursive function? Explain using a suitable C program. [10]

6. A C program contains the following declaration.  
`static int x[8] = { 10, 20, 30, 40, 50, 60, 70, 80};`  
a) What is the meaning of x  
b) What is the meaning of (x + 2)  
c) What is the value of \*x  
d) What is the value of (\*x + 2)  
e) What is the value of \*(x + 2) [10]
- OR**
7. Write a program to copy input to output, replacing each string of one or more blanks by a single blank. [10]
8. What is bit fields? Write a program to print the binary equivalent for a given number using bit fields. [10]
- OR**
9. Write a program to calculate the grade of the student in a class of 60 students using structures. [10]
10. What operations can be performed on binary files? Explain. [10]
- OR**
11. Write a program to find the number of occurrences of a given word in a given file. [10]

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