

Code No: 131AD**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech I Year I Semester Examinations, December - 2017****COMPUTER PROGRAMMING IN C****(Common to CE, ME, MCT, MMT, AE, MIE, PTM, 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) Explain rules of variables. [2]
- b) Give the symbols of flow chart. [3]
- c) What are the limitations of recursion. [2]
- d) What are uses of binary search as compared with linear search. [3]
- e) Differentiate between gets() and scanf(). [2]
- f) List the substrings that can be formed from the string "ABCD". [3]
- g) Differentiate between Union and Structure. [2]
- h) Explain about the typedef with an example. [3]
- i) What is the use of rewind()? [2]
- j) What is the impact of fclose() on buffered data. [3]

PART-B**(50 Marks)**

- 2.a) Explain the different types of bitwise operators are used in C.
 - b) Write an algorithm to find the greatest number among the three given numbers. [5+5]
- OR**
- 3.a) Write a program to swap the two numbers without using a temporary variable.
 - b) Explain the different types of operators are used in C. [5+5]
- 4.a) Write a program to implement the binary search by using functions.
 - b) Explain the two dimensional arrays for Inter Function Communication. [5+5]
- OR**
- 5.a) Write a program to generate Pascal's triangle by using an array.
 - b) What is recursion? Explain the different types of recursion. [5+5]
- 6.a) Explain the dynamic memory functions.
 - b) Write a program to count the number of times a given character appears in the string. [5+5]
- OR**
- 7.a) Write a program to sort the names of employees alphabetically.
 - b) Explain the rules for pointer operations. [5+5]

- 8.a) Write a program using pointer to structure to initialize the members in the structure. Use functions to print the student's information.
b) Explain the Enumerated data types with an example. [5+5]

OR

- 9.a) Explain the command line arguments with an example.
b) Write a program to define a structure for hotel that has members - name, address, grade, number of rooms and room charges. Write a function to print the names of a hotel in a particular grade. Also write a function to print names of a hotel that have room charges less than the specified value. [5+5]

- 10.a) Explain the different types of files are used in C.
b) Write a program to print the records in reverse order. The file must be opened in binary mode. [5+5]

OR

- 11.a) Write a program to append a binary file at the end of another.
b) Explain the function calls of fseek(). [5+5]

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