R16

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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