R13

Code No: 111AF

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech I Year Examinations, November/December - 2015
COMPUTER PROGRAMMING
(Common to all Branches)

Time: 3hours   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) What is the difference between compiler and interpreter?   [2]
  b) Give the list of bit wise operators of C.   [3]
  c) What is the use of type qualifier?   [2]
  d) Differentiate between a macro and a function.   [3]
  e) What is the use of strspn function?   [2]
  f) Write about pointer arithmetic operators.   [3]
  g) Define structure.   [2]
  h) Compare text files with binary files.   [3]
  i) List the stack operations.   [2]
  j) Why binary search is preferred over linear search?   [3]

PART-B   (50 Marks)

2.a) What is a flowchart? Discuss various symbols used in flowchart. Illustrate with an
     example.
  b) Explain the steps in program development.   [5+5]
                              OR
3.a) Describe the concept of operator precedence. When is associativity applied in
     expression evaluation?
  b) Write a program to print prime numbers up to a given number 'n'.   [5+5]

4 .a) Explain inter function communication.
  b) Write recursive and non-recursive functions to find factorial of a number. [5+5]
                              OR
5.a) How to pass arrays as argument to a function? Illustrate.
  b) Discuss array applications.   [5+5]

6.a) Discuss dynamic memory management with pointers.
  b) Discuss the need of pointers to functions.   [5+5]
                              OR
7.a) List any four library functions for string manipulations.
  b) Write a program to replace all strings with a new string.   [5+5]

8.a) Write a program to handle students profile data using structures.
 b) Write about enumerated data types. [5+5]

OR

9.a) Write a program to illustrate the usage of command line arguments.
 b) Discuss file positioning functions in C. [5+5]

10. Sort the following 10 elements using bubble sort technique and compare it with insertion sort technique. How many passes for each technique? [10]
 87   54   98   34   27   88   36   12   90   23

OR

11.a) Discuss the advantages of linked list over arrays.
 b) Write a program to implement queue using arrays. [5+5]

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