Code No: 152AF

R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech I Year II Semester Examinations, August - 2019
PROGRAMMING FOR PROBLEM SOLVING
(Common to EEE, CSE, IT)

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) Find and remove the error in the following C Statement. a >b ? g = a : g = b; [2]
b) How to declare string without specifying length? [2]
c) Write about ftell function. [2]
d) List the limitations of recursive functions. [2]
e) How do you find the time complexity of a bubble sort? [2]
f) Give a note on iteration statements in C language. [3]
g) What is enumerated data type and write syntax and example. [3]
h) How to handle errors with file functions? Explain [3]
i) Discuss about allocating and freeing memory. [3]
j) What is sorting and what is the importance of sorting? [3]

PART – B

(50 Marks)

2.a) Define variable. List the rules for declaring variable. Give valid and invalid examples.
b) Write an algorithm to find HCF of two positive integer numbers. [5+5]

OR

3.a) Explain the terms stdin, stdout and stderr.
b) List and explain the different types of storage class. [5+5]

4. Discuss any five string handling functions in detail. [10]

OR

5.a) Explain multidimensional arrays and give an example program to pass array as argument in functions.
b) How to pass the structures to functions as an argument? Explain. [5+5]

6.a) Write a program in C that copies the contents of one file to another file.
b) How to use fseek() for randomly access the file content? Explain [5+5]

OR

7. Briefly explain the pre-processor directives in detail. [10]

8. List and explain the some C standard functions and libraries. [10]

OR

9. Explain with examples how arrays are passed as arguments in functions. [10]

10.a) Explain the algorithm for finding roots of a quadratic equation.
b) Write a program to sort array of integers using selection sort. [5+5]

OR

11. Define algorithm and write algorithm to generate prime number series between m and n, where m and n are integers. [10]

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