R16 Code No: 132AD JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD B.Tech I Year II Semester Examinations, April - 2018 COMPUTER PROGRAMMING IN C (Common to EEE, ECE, CSE, EIE, IT, ETM) Time: 3 hours Max. Marks: **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. 1.a) What are flowchart symbols? Explain. [2] b) Explain the syntax of case statement with example. [3] What are limitations of recursion? c) [2] d) Explain the procedure for Binary search. [3] e) Give an example for pointers to pointers. [2] f) What are string functions? Explain. [3] Define structure with example. g) [2] h) What is self referential structure? Explain. [3] i) Write the concept of a file. [2] i) Explain about file status functions. [3] (50 Marks) 2.a) Write a C program to generate Fibonacci series. b) What are operators in C? Explain with example. [5+5] 3.a) Explain about decision making and branching. Describe the structure of a C program. 4.a) Write a C program for Bubble sort. b) What are storage classes? Explain with examples. [5+5] What is recursion? Write a C program for factorial of n using recursion. 5.a) Write a C program for addition of two matrices. b) 6.a) Write a C program to count the number of vowels, consonants, digits and white-spaces in a string which is entered by the user. b) Explain about pointer arithmetic and arrays with example. [5+5]

Write a C program to sort the 10 strings (entered by the user) in lexicographical order

7.a)

(dictionary order).

Explain about arrays of pointers with example.

Write a C program that takes two complex numbers as structures and adds them 8.a) with the use of functions. Explain about pointers to structures with example. [5+5] b) 9.a) △Explain about pre-processor commands. Explain about unions and functions. Write a C program to copy the content from one file to another file using fseek() 10.a) function. b) Write a C program to copy the binary file from another file. [5+5] 11.a) \(\rightarrow\) Write a C program read and write the content of the file using \(\frac{1}{2}\) printf(\) and fscanf(\(\frac{1}{2}\)) functions. b) Briefly explain about positioning functions in files.

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