

Code No: 151AC**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech I Year I Semester Examinations, October/November - 2020****PROGRAMMING FOR PROBLEM SOLVING****(Common to CE, ME, ECE, EIE, MCT, MMT, AE, MIE, PTM)****Time: 2 hours****Max. Marks: 75**

Answer any five questions
All questions carry equal marks

- 1.a) List the basic data types, their sizes and range of values supported by 'C' language.
- b) Describe the purpose of commonly used conversion characters in scanf() function. [7+8]
- 2.a) Explain about gets() and puts() functions with example.
- b) Write a C program for addition of given two matrices. [7+8]
- 3.a) Explain Creating Reading and writing text and binary files.
- b) Write the syntax and example for fseek, ftell and rewind functions. [7+8]
- 4.a) Define Recursion. Write a recursive function for factorial of a given number n.
- b) Explain about standard library function used in C. [7+8]
- 5.a) Apply Binary search on {23, 71, 66, 44, 89, 65, 98, 33}.
- b) Write an algorithm to check whether a given number n is prime or not. [7+8]
- 6.a) What are the arithmetic operators that are permitted on pointers?
- b) Write a 'C' function to reverse the string passed as an argument that cannot be altered without using string function. [7+8]
- 7.a) Define Structure and write the general format for declaring and accessing structure members with an example.
- b) Discuss pointers to arrays and structures with its syntax and example. [7+8]
- 8.a) Describe File handling in C.
- b) Write the syntax for opening and closing a file. [7+8]

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