

Code No.: CS103ES

R20

H.T.No.

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CMR ENGINEERING COLLEGE: : HYDERABAD

UGC AUTONOMOUS

I-B.TECH-I-Semester End Examinations (Supply) - January- 2022

PROGRAMMING FOR PROBLEM SOLVING

(Common to CSC, CSD, CSE, CSM, ECE, IT, MECH)

[Time: 3 Hours]

[Max. Marks: 70]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 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

(20 Marks)

1. a) Differentiate application software and operating system software? [2M]
- b) What is a flowchart explain with example? [2M]
- c) Write multidimensional array with an example? [2M]
- d) Differentiate structure and union? [2M]
- e) Write about at least two preprocessing commands? [2M]
- f) Differentiate text files and binary files? [2M]
- g) Differentiate call by value and call by reference? [2M]
- h) List out any two dynamic memory allocation functions? [2M]
- i) Write an algorithm to find maximum numbers of a given set? [2M]
- j) Explain the concept of order of complexity? [2M]

PART-B

(50 Marks)

2. a) Write a command line argument program to add two numbers? [5M]
 - b) Write about iterative statements in C? [5M]
- OR**
3. Explain Bitwise operators with example? [10M]
 4. Explain pointers in C with an example program? [10M]
- OR**
5. Write a program to transpose the matrix using array? [10M]
 6. Write a program to copy data of one file to other file? [10M]
- OR**
7. Explain the following
 - a) fseek() [3M]
 - b) ftell() [3M]
 - c) rewind() [4M]
 8. Explain call-by -reference with an example program? [10M]
- OR**
9. Write a program to find factorial of number using recursion and without recursion? [10M]
 10. Explain Binary search with an example program? [10M]
- OR**
11. Explain bubble sort with an example program? [10M]
