

Indian Institute of Technology, Patna

Mid-Term Lab Exam

Sub: CS112

Time: 2 hours

Marks: 20

2/05/2022

Instructions:

- Answers files: m_1.c and m_2.c
- Proper indentation is mandatory. **(2.5 marks)**
- You should comment the statements whenever necessary, to make the code understandable. **(2.5 marks)**

Questions:

1. Write a program in *C* to create a matrix *A* of order $m \times n$ based on run-time integer inputs and find all elements $A[i][j]$ such that it is smallest in the i^{th} row and largest in the j^{th} column. **(7 marks)**
2. Write a program to take a set of unique integers as input and store them in a one dimensional array at run time. Perform the following operations: (a) Reverse the array without using additional array, (b) Find two elements in the array whose sum is closest to zero. **(8 marks)**