NATIONAL INSTITUTE OF TECHNOLOGY GOA

Farmagudi, Ponda, Goa, 403401
Programme Name: B.Tech./M.Tech./Ph.D.
Mid Semester Examinations, October-2021

Course Name: MPMC   Course Code:
Date: 06/10/2021   Time: 2.00 to 3.30 PM
Duration: 1 Hour 30 Minutes   Max. Marks: 50

ANSWER ALL QUESTIONS

1. Design a 8085 memory interface circuit to map 32K X 8 bit memory. You are provided with a) 4K X 8 bit RAM memory -4 No.s and b) 8K X bit ROM memory – 01No. The starting address of ROM memory should be 0000H and the ending address of RAM memory should be FFFFH. Design all the intermediate logic circuits using logic gates.

    -20M

2. What is data path? Explain, with pictorial representations, the 8085 data path for the following instructions   -10M

    a) MOV A,M

    b) LXI H,FFEF H

3. Design a 4 X 4 bit RAM memory using D Flip-flops, tri-state logic devices and decoders   -10M

4. Write short notes on the following   -10M

    a) Computer a "Digital state machine"

    b) Hardware and programming model of 8085.