

**4E4160**

Roll No. \_\_\_\_\_

Total No of Pages: **3****4E4160**

**B. Tech. IV Sem. (Main/Back) Exam., June/July-2014**  
**Computer Science and Engineering**  
**4CS1A Microprocessors and Interfaces**  
**(Common with IT)**

**Time: 3 Hours****Maximum Marks: 80****Min. Passing Marks: 24****Instructions to Candidates:-**

*Attempt any five questions, selecting one question from each unit. All Questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.*

*Units of quantities used/ calculated must be stated clearly.*

*Use of following supporting material is permitted during examination.*

*(Mentioned in form No.205)*

1. \_\_\_\_\_

2. \_\_\_\_\_

**UNIT - I**

- Q.1 (a) Draw the diagram of 8085 microprocessor architecture. Explain the components. [8]
- (b) State the differences between static and dynamic RAM. [8]

**OR**

- Q.1 (a) How will you demultiplex the address and databus? How can you interface 2048 KB Ram with 8085 microprocessor? Explain. [8]
- (b) Is there any difference among microprocessor, microcontroller and microcomputer? Explain. [8]

## UNIT - II

- Q.2 (a) Explain direct and indirect addressing with suitable examples. [8]
- (b) Explain LDAX with an example. Write no. of T states and machine cycles involved in it. [8]

OR

- Q.2 (a) Explain the difference between 1 byte, 2 byte and 3 byte instructions. Quote suitable examples. [8]
- (b) Explain STA with an example. Write the no. of T states and machine cycles involved in it. [8]

## UNIT - III

- Q.3 (a) Is there any difference between vectored and non vectored interrupts? Explain with suitable examples. [8]
- (b) Explain the control word of 8259. [8]

OR

- Q.3 (a) Explain the implementations of stack in 8085 microprocessor programming. [8]
- (b) Explain the format of SIM. [8]

## UNIT - IV

- Q.4 Explain working and control word format of 8255 programmable peripheral interface. [16]

OR

- Q.4 Explain working and modes of 8279 keyboard/display interface. [16]

## UNIT - V

- Q.5 (a) How can you interface VSART 8251 with microprocessor 8085? Explain. [8]  
(b) Explain the interfacing of Liquid crystal display with microprocessor 8085. [8]

OR

Q.5 Write short notes on any two: - [16]

- (a) IEEE 488
  - (b) RS 4222A
  - (c) 8257
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