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4E4160

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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 are 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