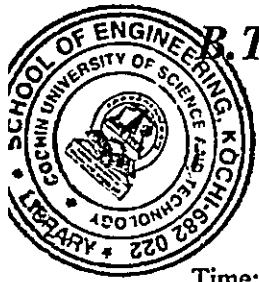


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## B.Tech. Degree IV Semester Supplementary Examination April 2021

### CS 15-1402 MICROPROCESSORS (2015 Scheme)

Time: 3 Hours

Maximum Marks: 60

#### PART A (Answer *ALL* questions)

(10 × 2 = 20)

- I. (a) Which are the general purpose and special purpose registers of 8085?
- (b) Mention the bus structure of 8085.
- (c) What do you understand by an instruction cycle? How it differs from the machine cycle?
- (d) Name the addressing modes in 8085.
- (e) Explain the usefulness of the following instructions in 8086.  
(i) LOCK (ii) TEST (iii) XLAT (iv) LES
- (f) What is the function of the assembler directives?
- (g) Explain suffix and operators used in assembly language programming.
- (h) Form control words for 8255 to operate in the following modes.  
(i) Port A- Output port mode 1  
Port B- Input port mode 0  
(ii) Port A- Bidirectional mode  
Port B- Input port mode 0
- (i) Mention the data transfer schemes in microprocessors.
- (j) What do you mean by vectored interrupts?

#### PART B

(4 × 10 = 40)

- II. Explain the architecture of Intel 8085 microprocessors with neat block diagram. (10)
- OR
- III. Explain the pin details of Intel 8085. (10)
- IV. (a) Compare and contrast I/O mapped I/O and memory mapped I/O. (5)  
(b) Draw the timing diagram of instruction STA 8050H with sufficient explanations. (5)
- OR
- V. With block diagram explain the interrupts in 8085. (10)
- VI. With the help of block schematic diagram explain the maximum mode configuration of 8086. (10)
- OR
- VII. Sketch block diagram showing basic 8086 minimum mode system. Explain functions of 8282 latches and 8286 transceiver. (10)
- VIII. Briefly explain the modes of operation of parallel communication interface (8255). (10)
- OR
- IX. What are the data transfer schemes in microprocessors? Explain the working of DMA controller (8257) with block diagram. (10)