BTS-IV(S)-04.21-0248 Reg. No. | | | | | | | | |

A

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)

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