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Paper Code : EC403 Microprocessor & Microcontrollers

UPID : 004430

Time Allotted : 3 Hours *Full Marks :70*

The Figures in the margin indicate full marks.
Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following : [1 x 10 = 10]

(I) What is an opcode?
(II) What is the use of ALE?
(III) What is a microcomputer?
(IV) What is the microcontroller and microcomputer?
(V) What is meant by wait state?
(VI) How many interrupts does 8085 have mention them
(VII) What is memory mapping?
(VIII) What is I/O mapping?
(IX) Give the register organization of 8085?
(X) What is interfacing?
(XI) How the 8085 processor differentiates a memory access (read/write) and 1/0 access (read/write)?
(XII) Why status signals are provided in microprocessor?

Group-B (Short Answer Type Question)

Answer any three of the following : [5 x 3 = 15]

2. What is vectored and Non- Vectored interrupt? [5]
3. What is masking and why it is required? [5]
4. What are the operations performed by ALU of 8085? [5]
5. Which interrupt has highest priority in 8085? What is the priority of other interrupts? [5]
6. Where is the READY signal used? [5]

Group-C (Long Answer Type Question)

Answer any three of the following : [15 x 3 = 45]

7. Explain the features of 8085 in detail. [15]
8. (a) How does the microprocessor differentiate among positive number, a negative number and a bit pattern? [5]
   (b) List the components of microprocessor (single board microcomputer) based system [5]
   (c) Define machine cycle. [5]
9. Write an assembly language program to convert a two digit BCD(8-bit) data to binary data. [15]
10. Explain timing diagram in details [15]
11. Draw the Timing diagram for INR M [15]

*** END OF PAPER ***