

4E 2914

Roll No. _____

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4E 2914

B.Tech. IV Semester (Main/Back) Examination - 2012

Computer & IT

4CS1 Microprocessor and Interface

Common for CS & 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 may 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. Attempt **any five questions** selecting **one question** from **each unit**.

Unit - I

1. a) Interface 1K bytes of R/W memory to an 8085 system with the memory map from 3000H to 33FFH. (8)
- b) Explain the need to demultiplex the bus AD₀ - AD₇. Draw the diagram how address/data bus is demultiplexed. (8)
2. a) Explain the difference between the followings : (2×4=8)
 - i) Microprocessor and microcontroller.
 - ii) Assembler and compiler.
 - iii) High level and low level languages.
 - iv) RAM and ROM.
- b) Draw the PIN diagram of 8085 microprocessor and explain in brief. (8)

Unit - II

3. a) Draw and explain the timing diagram of Fetch operation and memory read operation. (8)
- b) Explain the following 8085 instructions giving suitable examples. Also indicate the flags affected by these, if any : (2×4=8)
 - i) ACI ii) CALL iii) DAD iv) POP
4. a) Write an Assembly language delay subroutine to provide a time delay of 0.5ms for an 8085 microprocessor operating at 2MHz frequency. (8)
- b) Write comparison between memory mapped I/o and peripheral mapped I/o. (8)