

Code: 9A04602

R09

III B. Tech I Semester (R09) Supplementary Examinations, May 2012

MICROPROCESSORS & MICROCONTROLLERS

(Common to CSS, IT & ECC)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain about memory segmentation in 8086 microprocessor.
(b) Explain the architecture of 8086 microprocessor with a neat sketch.
- 2 Write an ALP in 8086 to add five 16-bit numbers and result is 24 bit.
- 3 (a) Explain the static RAM and EPROM interfacing to 8086 micro processor.
(b) Explain the concept of Direct Memory Access (DMA).
- 4 (a) Explain the keyboard and display interface method.
(b) Explain A/D Converter interface to 8086 micro processor.
- 5 Distinguish between asynchronous and synchronous data transfer schemes.
- 6 In an 8086 based system it is necessary to serve 64 IRQs from different initiators. The allocated address space for 8259s is from 0700h to 070 FH. Give the complete design by choosing the appropriate address locations in the above range. Give the initialization sequence for all 8259's with each IRQ activated in level triggered mode and the starting interrupt is type 40 H.
- 7 Give a brief description about architecture of 8051 microcontroller.
- 8 Explain the performance parameters involved in usage of ARM microcontrollers when compared to previous microcontrollers. And also list important features of ARM.
