Code: 9A04602 **R09**

B.Tech IV Year I Semester (R09) Supplementary Examinations June 2017

MICROPROCESSORS & MICROCONTROLLERS

(Mechatronics)

Time: 3 hours Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

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1 (a) Name three control flags of 8086 and Explain
(b) Write down the various registers present in 8086 and explain their function.

2 (a) Write an ALP in 8086 to arrange a set of 16 bit numbers into descending order
(b) Write an ALP in 8086 to find the GCD of two 16 bit numbers.

3 (a) What will happen when a DMA request is made while the CPU is performing a memory or I/O cycle?
(b) Explain 8237 interfacing to 8086 Micro Processor.

4 (a) Draw the cascading diagram of two 8259s and explain its functioning.
(b) Explain the mode 1 operation of 8255.

5 (a) Draw the block diagram of 8251 and explain each block.
(b) Discuss the serial data transmission standards and their specifications?

6 With neat diagrams, explain the five modes of operation of 8253 in detail. Draw the block diagram of 8253 and explain about each block in detail.

7 (a) Draw and discuss the format and bit definition of SCON register of 8051.
(b) Explain how the timers 0 and 1 are started and stopped by instructions

8 (a) Describe about version of ARM microcontrollers.
(b) Discuss about the process memory map of MCS-96.

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