

Code: 9A04602

**R09**

B.Tech III Year II Semester (R09) Supplementary Examinations May/June 2016

**MICROPROCESSORS & MICROCONTROLLERS**

(Common to EEE, ECE, CSE, EIE and E.Con.E)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Draw the block diagram of 8086 and explain each block.  
(b) Discuss the addressing modes provided by 8086 and explain with examples.
- 2 (a) Write an ALP to find whether the given string is a palindrome or not.  
(b) Write an ALP in 8086 to find 2's complement of an 8 bit hexadecimal number.
- 3 Interface 2K x 8 EPROM and 2K x 8 RAM to 8086 microprocessor using 74138 Decoder.
- 4 (a) Explain about internal registers of 8259.  
(b) With neat block diagram explain briefly about PPI.
- 5 (a) What is simplex half & full duplex modes of communication?  
(b) What is the difference between asynchronous & synchronous mode of communication?
- 6 With neat diagrams explain the five modes of operation of 8253 in detail
- 7 (a) Explain the JUMP instructions present in 8051 microcontroller? Write about CALL statement in 8051?  
(b) What is debugging?
- 8 (a) Give a short note on evolution of ARM.  
(b) Explain about the MCS-96 family.

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