

Code: 9A04602

B.Tech III Year II Semester (R09) Supplementary Examinations May/June 2017

**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) What are the advantages of Memory segmentation in 8086 microprocessor?  
(b) Discuss in brief about assembler directives.
- 2 (a) Write an ALP in 8086 to divide a 32-bit number by a 16-bit number.  
(b) Write an ALP in 8086 to add two 16 bit decimal numbers.
- 3 (a) Draw the block diagram of 8237 & explain its interfacing to 8086 Microprocessor with a neat sketch.  
(b) Briefly explain the maximum mode configuration of 8086.
- 4 (a) What is the use of Key board and display controller?  
(b) Give the BSR mode format of 8255.
- 5 (a) Describe High-speed Serial Communication Standards.  
(b) Give short notes on USB.
- 6 (a) Explain the following terms with reference to 8259 with examples:  
(i) Fully nested mode.  
(ii) Automatic rotation.  
(b) Bring out the features of 8259.
- 7 (a) Draw and discuss the format and bit definition of TMOD register of 8051.  
(b) Describe the various interrupts of 8051.
- 8 (a) Describe about versions and cores of ARM microcontrollers.  
(b) Give salient features about ARM microcontrollers.

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