

Code No: **R32044****R10****Set No. 1****III B.Tech II Semester Supplementary Examinations, April -2017****MICRO PROCESSORS AND MICRO CONTROLLERS****(Common to Electronics and Communications Engineering, Electronics and Computer Engineering, Bio-Medical Engineering, Electronics and Instrumentation Engineering)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions****All Questions carry equal marks**

- 1 a) Describe in detail about the register organization of 8086 microprocessor. [8M]
b) Explain about memory segmentation and instruction queue. [7M]
- 2 a) Write an ALP in 8086 to count number of positive and negative numbers from an array of 8-bit integers. [10M]
b) List out various assembler directives used in ALP of 8086 microprocessor. [5M]
- 3 a) Draw the interfacing diagram of an ADC to 8086 and explain. [8M]
b) Explain different modes of operation of 8086. [7M]
- 4 a) Explain signal description of 8279 with neat diagram. [8M]
b) What is necessity high speed serial communication? Explain any one serial communication bus [7M]
- 5 a) Explain segmentation and paging schemas in 80386. [7M]
b) Explain the CPU with a numeric co-processor 80486DX. [8M]
- 6 a) Discuss any four signal descriptions of 8051 [7M]
b) Explain interrupt structure of 8051 microcontroller [8M]
- 7 a) Write overview and features of PIC microcontroller. [7M]
b) Explain interrupts in PIC16C61/71. [8M]
- 8 a) Explain ARM / Thumb programming model. [7M]
b) Discuss ARM Thumb instruction set. [8M]
