

Code: EE6T2

III B.Tech - II Semester – Regular Examinations – April 2016

**MICROPROCESSORS & MICROCONTROLLERS
(ELECTRICAL & ELECTRONICS ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. a) Draw a neat sketch and explain of architecture of 8086 microprocessor. 10 M
- b) Explain the function of QS0 and QS1 signals of 8086. 4 M
2. a) Explain in detail various addressing modes of 8086 processor with examples. 7 M
- b) Draw and discuss read cycle timing diagram of 8086 in minimum mode. 7 M
3. a) Explain algorithm implementation of 8 M
 - i) IF-THEN-ELSE
 - ii) FOR loop
- b) Write an 8086 Assembler program to decide the parity of a given number? If the parity is even, set DL to 00H, else set DL to 01H. 6 M

4. a) Explain the different control word formats of 8255 PPI. 7 M
- b) Design an interface between 8086 CPU and two chips of 16K X 8 EPROM and two chips of 32K X 8 RAM. Select the starting address of EPROM suitably. The RAM address must start at 00000H. 7 M
5. a) What are the registers available in 8257? What are their functions? 7 M
- b) Explain the initialization sequence of 8259A using a flow chart. 7 M
6. a) What is memory organisation of 8051? 7 M
- b) Write an assembly language program in 8051 micro controller to find 1's and 2's complement of CCH. 7 M
7. a) Discuss in detail about serial port operation in 8051 microcontroller. 7 M
- b) Discuss about various modes of operations of timer in 8051. 7 M
8. With neat diagram explain the interfacing of 8051 with LED's. 14 M