

Code: CS415

II B.Tech - II Semester – Regular Examinations - JUNE 2015

**MICRO PROCESSORS & INTERFACING
(COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

- 1 a) Explain the features and drawbacks of 8085 Microprocessor. 7 M
- b) With suitable examples, explain how the conditional flags of 8086 microprocessor are affected? 7 M
- 2 a) Develop an ALP to count the number of '1's in an 8-bit binary number. 7 M
- b) Write an ALP to find the frequency of occurrence of a given byte "OAH" in a string. 7 M
- 3 a) Explain the function of the following signals of 8086. 7 M
 - i) $\overline{\text{BHE}}$ ii) $\overline{\text{MN/MX}}$ iii) $\overline{\text{TEST}}$ iv) $\overline{\text{LOCK}}$
- b) Write about the significance of interfacing of 8257 to 8086 microprocessor. 7 M

- 4 a) Explain the control word format of 8255 in I/O mode with suitable examples. 7 M
- b) With a neat sketch, write about interfacing of A/D converter to 8086 using 8255. 7 M
- 5 a) Draw and Explain functional block diagram of 8259 PIC. 7 M
- b) Explain the significance of dedicated interrupts of 8086. 7 M
- 6 a) With a neat functional block diagram, explain 8251 USART Architecture. 7 M
- b) Explain the speed enhancement methods used in serial communication standards. 7 M
- 7 a) Describe the function of four major processing units in a 80286 microprocessor. 7 M
- b) Describe the major improvements that 80486 processor has over 80386 processor. 7 M
- 8 a) Write a note on the evolution of Pentium Processors? 7 M
- b) List out the features of Core Duo processor architecture? 7 M