PVP 14

Code: CS5T2

III B.Tech - I Semester – Regular/Supplementary Examinations
October 2018

MICROPROCESSOR AND INTERFACING
(COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART – A

Answer ***all*** the questions. All questions carry equal marks

11x 2 = 22 M

1. a) Draw the flag register of 8086 microprocessor.
   b) List the string related instructions present in 8086.
   c) Discuss the function of Execution unit (EU) in 8086.
   d) Discuss two STACK related instructions in 8086.
   e) Differentiate between maskable and non- maskable interrupts of 8086 microprocessor.
   f) Differentiate between DB and DW assembler directive.
   g) Distinguish between BSR and IO mode in 8255.
   h) What are the additional features of 80286 compared to 8086 processor.
   i) Differentiate between real mode and protected mode.
   j) Mention the features of Pentium Processor.
   k) Compare the merits of dual core processor over single core processor.

PART – B

Answer any ***THREE*** questions. All questions carry equal marks.
3 x 16 = 48 M

2. a) Illustrate the concept of segmented memory model in 8086 and hence explain how physical address is calculated. 8 M

b) Explain the function of the following flags in 8086 microprocessor. 8 M

i) Carry Flag
ii) Parity Flag
iii) Interrupt-enable Flag
iv) Auxiliary carry Flag

3. a) Write an assembly language program to sort an array of 5 numbers in ascending order. 8 M

b) Explain the following instruction with respect to 8086 microprocessor. 8 M

i) IN
ii) XLAT
iii) LEA
iv) TEST

4. a) Discuss the functional block diagram of programmable keyboard interface (8279) with the help of neat sketch. 8 M

b) Draw and discuss the interrupt vector table of 8086 microprocessor with the help of examples. 8 M

5. a) Illustrate the register organization model in 80286 with examples. 8 M

b) Compare the salient features of 80386 and 80486 and explain. 8 M

6. a) Explain the Architecture of Pentium processor with the help of neat diagram. 8 M

b) Explain the dual core architecture and compare it with other CPU's. 8 M