

Code: CS5T2

**III B.Tech - I Semester – Regular/Supplementary Examinations  
October 2017**

**MICROPROCESSOR AND INTERFACING  
(COMPUTER SCIENCE AND ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

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

11x 2 = 22 M

1.

- a) What is the instruction queue? Explain its advantages.
- b) What do you mean by index registers? What are the functions of SI and DI registers in 8086 microprocessor?
- c) What is stack? List the stack instructions of 8086 microprocessor.
- d) Explain about the jump instruction of 8086 microprocessor.
- e) What is the function of assembler directives? Explain the following directives of 8086 i) DB ii) SEGMENT
- f) What are hardware and software interrupts of 8086 microprocessor?
- g) Explain the bit set/reset mode of 8255.
- h) What are the features of 80286 processor?
- i) Explain about the flag register of 80486 processor?
- j) List the salient features of Pentium processor.
- k) Distinguish between Dual core and Core duo processors.

## PART – B

Answer any **THREE** questions. All questions carry equal marks.

3 x 16 = 48 M

- 2.a) Discuss memory segmentation in 8086 microprocessor and mention its advantages. 8 M
- b) Define addressing mode. Explain in detail about the data addressing modes of 8086 with examples. 8 M
- 3.a) Explain data transfer instructions and branch instructions of 8086 microprocessor with examples. 8 M
- b) Write an 8086 assembly language program to find the average of a given array of data elements of size ten. 8 M
- 4.a) What do you mean by an interrupt and how they are classified? What is interrupt vector table of 8086 and explain its structure? 8 M
- b) What are the features of 8279? Draw the Block diagram of 8279 and explain the functions of each block. 8 M
- 5.a) What are the features of 80386? Explain in detail about real mode and protected mode of operation in 80386 processor. 8 M

b) Discuss internal register structure of 80286 processor and explain typical function of each of the registers in brief. 8 M

6.a) Draw and discuss the architecture of Pentium processor.

8 M

b) Explain in detail about the characteristics of dual core and Core duo processors.

8 M