R10

III B.Tech I Semester Supplementary Examinations, May - 2019
MICROPROCESSORS AND MULTICORE SYSTEMS
(Computer Science and Engineering)

Time: 3 hours   **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks
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1 a) Discuss the general functions of all general purpose registers of 8086. Explain the special function of each register and instruction support for those functions.   [8M]
   b) List the branch instructions of 8086 and describe them.   [7M]

2 a) Explain the procedure of sequence program for finding average of two numbers with an example.   [8M]
   b) Explain the implementation of REPEAT-UNTIL structure using an example.   [7M]

3 a) Explain how 8086 stack is setup in assembly language program.   [8M]
   b) Discuss Reentrant procedure and Recursive procedure.   [7M]

4 a) Explain following instructions with example,   [8M]
       i) IDIV ii) IMUL iii) INC iv) INT
   b) Discuss the assembler directives ASSUME, PAGE, TITLE and ORG with examples.   [7M]

5 a) Define interrupt service routine. Discuss the sequence of operations performed in the interrupt acknowledge cycle.   [8M]
   b) Explain the hardware interrupts are used in generation of   [7M]
       i) real time clock ii) accurate time base for timing interrupts.

6 a) Write an ALP in 8086 to move block of N bytes of data from source to destination.   [8M]
   b) Write a program to convert a 2 digit packed BCD number to two unpacked bytes.   [7M]

7 a) Discuss the 80286 interrupts.   [8M]
   b) Explain the pin configuration and signal groups of 80386 microprocessor.   [7M]

8 a) Discuss the features of Pentium processor family.   [8M]
   b) Explain the architecture and features of Intel Core 2 Duo.   [7M]