

B.TECH. SEM -IV (COMPUTER) 2014 COURSE (CBCS) :
SUMMER - 2018
SUBJECT: MICROPROCESSORS & MICROCONTROLLERS

Day: **Tuesday**
Date: **12/06/2018**

S-2018-2285

Time: **10.00 AM TO 01.00 PM**
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Use of non-programmable calculator is **ALLOWED**.
- 4) Draw neat and labeled diagram **WHEREVER** necessary.
- 5) Assume suitable data, if necessary.

- Q.1** a) Describe memory operand addressing modes of 80386. [05]
b) Describe EFLAG register of 80386. [05]

OR

Draw and explain register organization of 80386 DX processor. [10]

- Q.2** Describe segment translation process in protected mode with neat diagram. [10]
Draw the formats of descriptors used in this translation.

OR

Describe interrupt handling with the help of IDTR and IDT. [10]

- Q.3** Describe operating modes of 8255 with control word formats. [10]

OR

Describe the timer modes of 8254 with neat timing diagram. [10]

- Q.4** What is multicore architecture? Compare core to duo and dual core processors. [10]

OR

Describe i5/ i7 processor with neat block diagram. Write the features of i5/i7 processor. [10]

- Q.5** Describe TCON and SCON registers of 8051 microcontroller. [10]

OR

Describe Special Function Registers and draw SFR structure of 8051. [10]

- Q.6** Interface 4X4 matrix keyboard to 8051 and write algorithm. [10]

OR

Write down the steps to receive the data bytes serially in 8051. Discuss the modes of operation of serial port of 8051. [10]

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