Code: 1G363

III B.Tech. II Semester Supplementary Examinations May 2018
Microprocessors and Interfacing
(Electronics & Communication Engineering)

Max. Marks: 70   Time: 3 Hours

Answer any **five** questions
All Questions carry equal marks (**14 Marks** each)
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1. a) Explain about memory segmentation in 8086 microprocessor.   7M

    b) Draw the pin diagram of 8086 and explain maximum mode pins.   7M

2. a) Explain the following addressing modes of 8086 with an example.
           i. Register Relative   ii. Register indirect   iii. Relative based Indexed.   9M

    b) Explain about macros and procedures.   5M

3. a) Give the control word format of 8255 PPI.   6M

    b) Write an ALP to interface an ADC 0809 to 8086 with neat diagram.   8M

4. a) Interface the following ICs with 8086
           i.   Two 4KB EPROMs, ending at FFFFFH.
           ii. Two 4KB SRAMs, starting at 00000H.   8M

    b) Explain the internal architecture of a DMA controller.   6M

5. a) Draw and explain the interrupt structure of 8086 microprocessor.   6M

    b) Draw the internal block diagram of 8259, and explain in detail about each
        block.   8M

6. a) Explain about different operating modes of 8253   7M

    b) Draw the interfacing diagram 8279 with 8086 and explain   7M

7. a) Draw the internal architecture of 8251 and interface with 8086.   7M

    b) Distinguish between synchronous and asynchronous data transfer.   7M

8. a) Write short notes on
           i.   Salient features of 80286
           ii. Real and Protected modes of 80386   10M

    b) Write short notes on super scalar architecture of Pentium   4M
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