Total No. of Questions—**12**] [Total No. of Printed Pages—**3**

Seat No.	

[4957]-206

S.E. (Comp.) (Second Semester) EXAMINATION, 2016
MICROPROCESSOR AND INTERFACING TECHNIQUES
(2008 PATTERN)

Time : Three Hours **Maximum Marks : 80**

N.B. **:—** (*i*) Answer any **3** questions from each section.

(*ii*) Answer to the *two* sections should be written in *separate* books.

(*iii*) Neat diagrams must be drawn wherever necessary.

(*iv*) Figures to the right indicate full marks.

(*v*) Assume suitable data, if necessary.

Section I

1. (*a*) Draw and explain programmers model of 8086 microprocessor system. [8]

(*b*) Explain even and odd memory bank along with BHE and Ao signals. [8]

Or

2. (*a*) Explain with a neat diagram of memory segmentation in 8086. [8]

(*b*) List out the signals of the 8086 which have different meanings in minimum and maximum mode. [8]

P.T.O.

3. (*a*) Explain all rotate instruction with example. [8]

(*b*) Write an 8086 ALP to separate even and odd Nos. in the array. [8]

Or

4. (*a*) Explain the following assembler directives with example : [8]

(*i*) EXTRN

(*ii*) LABEL

(*iii*) PUBLIC

(*iv*) MACRO & ENDM.

(*b*) Write an 8086 ALP to generate a delay of 100 ms if 8086 system running at 10 MHz. [8]

5. (*a*) Explain what is TSR ? Explain the structure of TSR in detail. [10]

(*b*) What is IVT of 8086 ? Explain its structure in detail. [8]

Or

6. (*a*) Draw and explain 8259 block diagram in brief. [10]

(*b*) Compare DOS and BIOS calls ? [8]

Section II

7. (*a*) Draw and explain 8255 in brief. [8]

(*b*) Explain BSR and I/O mode with control word format. [8]

Or

8. (*a*) Draw and explain 8251 in brief. [8]

(*b*) Explain dual slope ADC with block diagram. [8]

9. (*a*) Draw and explain 8279 in brief. [8]

(*b*) Explain different I/O modes available in 8279. [8]

Or

10. (*a*) Explain various modes of 8237 in detail. [8]

(*b*) Draw and explain 8253/8254 in brief. [8]

Or

11. (*a*) Draw and explain 8087 NDP in detail. [10]

(*b*) Explain stack of 8087 with example. [8]

Or

12. (*a*) Explain status word and control word of 8087 NDP. [10]

(*b*) Draw and explain internal block diagram of 8288 in details. [8]