

M.Sc.(Electronics) CBCS Pattern Semester-I
PSCELET03 - Advanced Microprocessors Paper-III

P. Pages : 2

Time : Three Hours



GUG/W/23/11156

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well labeled diagrams wherever necessary.
3. Use of calculator is allowed.

Either :

1. a) Draw block diagram of Intel 8086 Architecture and explain BIU in it. 8
b) What is flag register? Draw and explain flag register of Intel 8086 microprocessor. 8

OR

- c) Explain the functions of pointer and source index registers in Execution Unit (EU) of Intel 8086 microprocessor. 8
d) State any four data transfer instruction and explain. 8

Either :

2. a) What are assembler directives? Explain various assembler directives used in writing Assembly Language. 8
b) What is stack? Discuss stack structure in 8086 microprocessor. 8

OR

- c) What is subroutine? Explain how subroutine is executed with example. 8
d) Discuss PUSH and POP instructions in 8086 microprocessor. 8

Either :

3. a) Draw internal architecture of 8255 programmable peripheral interface and function of each block. 8
b) Discuss control word register of 8255 PPI with suitable example. 8

OR

- c) Describe architectural block diagram of 8279 keyboard interface/display controller. 8
d) Describe operating modes and control word register of 8279. 8

Either :

4. a) Compare the special features of 80286 with 80386 **8**
b) Describe Multimedia Extension (MMX) technology **8**

OR

- c) What is protected mode memory addressing? Describe its advantages. **8**
d) Describe in brief features of superscalar processor. **8**
5. a) State any two addressing modes of 8086. **4**
b) What is MASM Utility? Explain its features. **4**
c) Explain control word format of 8259 A. **4**
d) Discuss advantages of SIMD technology. **4**
