

M.Sc. F.Y. (Electronics) (CBCS Pattern) Sem-I
PSCELET03 / PSELT103 - Paper-III : Advanced Microprocessors

P. Pages : 1

Time : Three Hours



GUG/W/22/11156

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat and labelled diagrams wherever necessary.

Either

1. a) Draw a diagram showing internal architecture of microprocessor 8086 and explain each block. 8
b) What is flag register? State and explain various flags in 8086 microprocessor. 8

OR

- c) What are conditional and unconditional branch instructions of 8086 up? Explain with example 8
d) Explain with a functional diagram the Co Processor 8087 8

Either

2. a) What are assembler directives? Explain various directives used in an assembly language Programming. 8
b) Describe the use of PUSH and POP instructions with suitable examples. 8

OR

- c) Write an ALP to find the smallest number from an array using Procedure 8
d) What are macros? Explain the difference between a macro and a subroutine with suitable examples 8

Either

3. a) Draw the block diagram of the PPI 8255 and explain its operation in mode-0 8
b) Describe the various modes of operation of the 8254 with timing diagrams. 8

OR

- c) Explain the internal architecture of the keyboard / display controller 8279 8
d) Draw the block diagram of the Programmable interrupt controller 8259-A and explain it. 8

Either

4. a) Explain the protected virtual addressing mode (PVAM). How does it differ from real mode 8
b) Describe in brief single instruction Multiple data (SIMD) technology. 8

OR

- c) Compare the feature of up 80486 with that of ups 80286 and 80386. 8
d) Describe the superscalar Architecture. 8

5. a) State any four logical instructions in the 8086 Processor 4
b) Explain the stack structure of the 8086. 4
c) Describe 8279 commands for blanking of display 4
d) What is MMX technology? Explain. 4
