Bachelor of Science (S.Y. B.Sc.) (CBCS Pattern) Third Semester

USELT06 - Electronics Paper-II Microprocessor

P. Pages : 2 **GUG/W/18/11605**

Time : Three Hours * 3 6 8 0 * Max. Marks : 50

Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat and labelled diagram whenever necessary.

1. Either

a) Explain: **5+5**
i) Memory Interfacing.
ii) Memory map.

OR

b) Draw a block diagram of 8085 microprocessor and explain the function of each block in it. **10**

2. Either

a) Explain the different addressing modes supported by 8085 microprocessor with suitable example. **10**

OR

b) Explain the subroutine and stack operation. **5+5**
What is flowchart? Explain various symbols in it.

3. Either

a) Draw a flowchart and write a ALP for masking of 4 MSBs of a data 35H. **10**

OR

b) Draw and explain the timing diagram for instruction MVIr, data. **5+5**
What is interrupt? What are hardware and software interrupt.

4. Either

a) Draw a block diagram of internal architecture of microprocessor 8086 and explain each block. **7+3**
State various operating modes of 8086 Explain any one.

OR

b) Explain the flag register in 8086 microprocessor. **5+5**
Explain the function of the following 8086 instructions.

i) ADC ii) CALL addr

iii) HLT iv) DAA

v) CLC

5. Attempt **any ten** of the following. **10**

a) What is a microcomputer?

b) State the function of $\overline{\text{RESET IN}}$ pin in 8085.

c) State the function of instruction decoder in 8085μP.

d) State the addressing mode of ADDB.

e) Explain the meaning of IN 01 H.

f) What is structured programming.

g) State the function NOP instruction in 8085μP.

h) Define fetch cycle.

i) Explain the meaning of DAA instruction.

j) State the size of data bus in 8086μP.

k) Draw flag register format of 8086μP.

l) State the use of queue in 8086μP.

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