Total No. of Printed Pages:02

SUBJECT CODE NO:- H-207
FACULTY OF SCIENCE AND TECHNOLOGY
S.E. (CSE/IT)
Microprocessor & Computer Organization
(REVISED)

[Time: Three Hours]   [Max. Marks: 80]

Please check whether you have got the right question paper.

N.B
    1) Q.1 & 6 are compulsory.
    2) Solve <u>any two</u> from remaining in each section.
    3) Assume suitable data with justification.

Section A

Q.1   Solve any five   10

    i)   What is pipelined architecture?
    ii)   Identify which segment registers are used in MOVSB instruction?
    iii)   How 20 bit physical address is generated in 8086?
    iv)   Define Macro with example.
    v)   What is use of $\overline{BHE}$ / S7 pin in 8086.
    vi)   What is address bus in 8086?
    vii)   Enlist any four types of main memory.

Q.2   a)   For the following instructions draw the read and write cycles. Also explain how 8086   10
        executes this instruction.
        MOV AX, [BX]
        MOV [BP], CX

    b)   Explain the flags of 8086 with effect of sample instruction on them?   05

Q.3   a)   Write interactive program to convert two digit hex number into BCD number?   08

    b)   Draw the pin diagram of 8088 microprocessor? And explain the difference between   07
        8086 and 8088 microprocessor.

Q.4   a)   What is TSR? Write a program to demonstrate the TSR?   05

    b)   Explain the role of IVT in executing ISR?   05

    c)   Draw and explain timing diagram of INTR instruction.   05

Q.5   Write short notes (<u>any three</u>)   15

     i)   Five services of Int 21 h with example.
     ii)   PSP
     iii)   Near and Far procedure with example
     iv)   Directives
     v)   Addressing modes of 8086
     vi)   Memory segmentation

Section B

Q.6   Solve any five   10

1) Define the term computer architecture?
2) Enlist functional components of computer.
3) What is Latency and throughput?
4) Enlist any two differences between SRAM & DRAM?
5) What is COM port?
6) What is control memory?
7) What is CISC?

Q.7   a) Explain classification of computers in detail?   08

         b) Explain different parameters used to measure the performance of computer?   07

Q.8   a) Explain behavior of CPU operation using flow chart?   07

         b) Explain instruction cycle in detail?   04

         c) Describe hardwired control unit design in detail?   04

Q.9   a) What is parallel port? Explain printer port in detail?   05

         b) Explain PCI and SCSI bus in detail?   05

         c) Explain I/O interface with suitable example.   05

Q.10   Write short notes (Any three)   15

1) Memory subsystem
2) Output Devices
3) Data Path in a CPU
4) Vth Generation of computers
5) RISC Vs. CISC.