

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2021-COURSE)
B. Tech. Sem - III Computer Science & Engineering : WINTER- 2022
SUBJECT : MACHINE ORGANIZATION & MICROPROCESSOR

Day : Tuesday

Time : 10:00 AM-01:00 PM

Date : 13-12-2022

W-25312-2022

Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Assume suitable data wherever necessary.
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Q.1 Draw and explain 8086 architecture. (10)

OR

Define concept of segmentation in 8086 processor.

Q.2 Convert decimal number to fixed point binary number. No. is = 7.75. (10)

OR

Multiply the two numbers -7 and 3 by using Booths multiplication algorithm.

Q.3 List and explain three types of control signals. (10)

OR

Draw and explain microprogrammed implementation of a control unit.

Q.4 Describe the various performance metrics of Cache. How cache performance is improving? (10)

OR

Describe the cache coherence problem in detail. Also describe Snoopy Bus protocol.

Q.5 Draw and explain USB Bus with diagram. (10)

OR

Define interrupt processing in interrupt driven organization.

Q.6 List and explain Flynn's classification for pipeline processor. (10)

OR

Draw and explain concept of instruction pipeline.

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