Total number of printed pages–4

1 (Sem–2/FYUGP) COM 21 MN/(A)

2026

MAHENDRARAM DHEKIL PHOOKAN COLLEGE LIBRARY
Acc. No.
Date
Nagaon, Assam

COMPUTER SCIENCE

(Minor)

SET–A

Paper : COM4200104MN

(Computer Organization)

Full Marks : 60

Time : 2½ hours

The figures in the margin indicate full marks for the questions.

SET-A

1. Answer the following questions as directed : 1×8=8

   (a) What is register ?

   (b) The BCD representation of $(34)_{10}$ is _____. *(Fill in the blank)*

   (c) What is micro-operation ?

   (d) What is interrupt cycle ?

   (e) Full form of CISC is _____. *(Fill in the blank)*

   (f) DRAM requires and external memory refresh. *(State true **or** false)*

   (g) What is priority interrupts ?

   (h) The 8085 microprocessor is an _____ bit microprocessor. *(Fill in the blank)*

2. Answer ***any six*** of the following questions : 2×6=12

   (a) Sequential circuits

   (b) Excess–3

   (c) Arithmetic circuit

   (d) Hardwired control unit

   (e) General purpose registers

   (f) Cache memory

   (g) Hit ratio

   (h) I/O interface

   (i) Instruction cycle

   (j) Memory stack

3. Answer ***any four*** of the following questions : 5×4=20

   (a) What is decoder ? Explain 3×8 line decoder.

   (b) Explain the functional unit of a computer.

   (c) How floating point numbers are represented in computer ? Explain.

   (d) What is shift micro-operation ? Explain.

   (e) Explain various types of interrupt with example.

   (f) Explain various addressing modes that are used in the computers.

(g) What is cache memory? Explain *one* mapping function used in the implementation of cache memory.

(h) What is I/O interface? What are the needs for I/O interface?

4. Answer ***any two*** of the following questions : 10×2=20

(a) What are the different logic gates used for the design of digital circuits? Give their logic symbols and truth tables.

(b) State the duality principle of Boolean algebra. Also give an example.

(c) Differentiate between hardwired control unit and micro-programmed control unit.

(d) Explain interrupt-driven I/O and DMA-controlled I/O.

(e) Describe data transfer instructions of 8085 microprocessor.

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