2020

COMPUTER APPLICATION (Honours)

Paper : DC-5

(Computer Organization & Architecture)

(CBCS)

Full Marks : 32 Time : Two Hours

The figures in the margin indicate full marks.

Group - A

Answer any *six* questions. 2×6=12

1. (a) What is Program Counter?

   (b) What is addressing mode?

   (c) What is the function of ALE pin?

   (d) Why Cache memory is used?

   (e) What is instruction format?

   (f) What is Tri-state-buffer?

   (g) Differentiate between SRAM and DRAM.

   (h) How many pins are there in 8085 Microprocessor?

Group - B

Answer any *two* questions. 10×2=20

2. (a) Write the working principle of an accumulator based CPU.

   (b) What are the different addressing modes available in 8085 Microprocessor? 6+4=10

3. Write a program to evaluate the following arithmetic expression : $2\frac{1}{2} \times 4 = 10$

$x = a * ((b - c) + (d * e) / f)$

(i) Using a stack organized computer with zero address instructions.

(ii) Using an accumulator based computer with one address instructions.

(iii) Using a general register based computer with two address instructions.

(iv) Using a general register based computer with three address instructions.

4. (a) Differentiate between Hardwired Control Unit and Micro-programmed Control Unit.

(b) Explain the advantages and disadvantages of Independent request method. 5+5=10