2020

COMPUTER SCIENCE (Honours)

Paper : DC-5

(Computer Organization & Architecture)

(CBCS)

Full Marks : 32 Time : Two Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.

Group - A

Answer any *six* questions. 2×6=12

1. (a) Write the functions of instruction register.

   (b) Differentiate between SRAM and DRAM.

   (c) What is system bus?

   (d) Define Hit and Miss ratio.

   (e) What is instruction cycle?

   (f) What is Tri-state-buffer?

   (g) What is addressing mode?

   (h) What is stack pointer?

Group - B

Answer any *two* questions. 10×2=20

2. Write a program to evaluate the following arithmetic expression : 2½×4=10

   x = a – (b * c) + (d / e)

   (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.

3. (a) Differentiate between memory-mapped-I/O and I/O mapped I/O.

(b) Explain the advantages and disadvantages of Daisy Chaining method.

5+5=10

4. (a) What is DMA? Why it is used?

(b) What is stored program organization? Define Instruction Cycle.

3+2+1+4=10