Total No. of printed pages = 6

RETEST EXAMINATION - 2019

Semester : 4th (Old)

Subject Code : CO-403

MICROPROCESSOR

Full Marks – 70

Time – Three hours

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

Instructions :

1. Questions on PART – A are compulsory.
2. Answer any *five* questions from PART – B.

PART – A

Marks – 25

1. Fill in the blanks : 1×10=10

   (a) Instruction pointer is a ——— bit register.

   (b) PUSH, POP are related to ——— operation.

   (c) Instruction cycle consists of ——— cycle and ——— cycle.

[Turn over

(d) DMA stands for ——— ——— ———.

(e) CISC stands for ——— ——— ——— ——— Set Computer.

(f) 20 bit address bus can address ——— locations.

(g) JNZ instruction falls in ——— ——— ——— group of 8085 instruction set.

(h) DIP stands for ——— ——— ———.

(i) 8255 has ——— input/output ports.

(j) An instruction has two parts ——— and ———.

2. State true or false : 1×10=10

(a) INTR is a non-maskable interrupt.

(b) There are 4 segment registers in 8086.

(c) 8257 is DMA controller.

(d) ISS stands for Interrupt Subroutine Service.

(e) The results of the operations are stored in the accumulator.

(f) ALE stands for Address Latch Enable.

(g) 8085 has 6 flags.

(h) 8086 has 8 addressing modes.

(i) H and L registers in 8085 are special purpose registers.

(j) An instruction cycle consists of many machine cycles.

3. Choose the correct answer : 1×5=5

(a) SIM stands for

(i) Select Interrupt Mask

(ii) Set Interrupt Mask

(iii) Sorting Interrupt Mask

(iv) None of these

(b) EPROM is generally erased by using

(i) Ultraviolet rays

(ii) Infrared rays

(iii) Electric pulse

(iv) Any of these

(c) 8251 is

(i) PPI

(ii) DMA controller

(iii) USART

(iv) None of these

(d) SDRAM stands for

(i) Static DRAM

(ii) Synchronous DRAM

(iii) Sequential DRAM

(iv) None of these

(e) 8086 is a ——— bit processor.

(i) 8

(ii) 16

(iii) 32

(iv) None of these

PART – B

Marks – 45

4. (a) What are the two modes of operations of 8086 ? 1

(b) Explain the pin diagram of 8085. 5

(c) List and state the purpose of the different flags available in 8085. 3

5. (a) Draw and explain the timing diagram of memory read cycle. 4

(b) Define microprocessor. 2

(c) Using a diagram explain the interfacing of LED with 8085. 3

6. (a) Define the term multiplexing. 2

(b) State in brief the different modes of operation of 8253. 4

(c) Write an ALP to add two 8-bit numbers. 3

7. (a) Explain with example any three addressing modes of 8085. 3

(b) State a few applications of microprocessors. 2

(c) Illustrate the interfacing of memory with 8085. 4

8. (a) List and state the functions of the different blocks of the block diagram of 8085. 6

(b) State functions of segment, index and general purpose registers in 8086. 3

9. (a) List the five categories of instruction with an example in each case. 5

(b) Differentiate between memory mapped I/O and I/O mapped I/O. 4

10. Write short notes on any *three* : 3×3=9

(a) Programmed data transfer

(b) 8085 interrupts

(c) Interfacing of seven segment display.

(d) 8251

(e) DMA controller.