DAY - 18 SEAT NUMBER | | | | | | |

2020	III	13	1100	V – 268	(E)

COMPUTER SCIENCE
PAPER - II (D-9)

Time : 3 Hours	3 Pages	Max. Marks : 50

Instructions : *(1) All question are compulsory.*
(2) Figures to the right indicate full marks.
(3) Draw neat diagram wherever necessary.
(4) Use of any type of calculator is not allowed.
(5) Comments are must in assembly language program.

1. (A) Select the correct alternative and rewrite the following :

(a) _____ is non-maskable interrupt in 8085. 1

(i) RST 5.5
(ii) RST 6.5
(iii) RST 7.5
(iv) TRAP

(b) The length of instruction MVI reg. data is _____. 1

(i) 1 Byte
(ii) 2 byte
(iii) 3 byte
(iv) 4 byte

(c) The 8051 Micro-controller pan address _____ program memory. 1

(i) 8 k byte
(ii) 16 k byte
(iii) 32 k byte
(iv) 64 k byte

(d) _____ Cable is insensitive of EMI. 1

(i) Co-axial
(ii) STP
(iii) UTP
(iv) Fiber Optic

(B) Answer **any two** of the following :

(a) Write a note on evolution of Micro-processor. 3

(b) Explain any three addressing modes of 8085 Micro-processor with one example. 3

(c) What is HUB ? Explain Active and Passive HUB. 3

2. (A) Answer **any two** of the following :

(a) What is multiplexed BUS in 8085 ? Give its advantages. 3

(b) Explain following instruction of 8085 Micro-processor. 3

(i) CMA

(ii) RRC

(iii) STC

(c) Define Topology. Explain Physical and Logical Topology. 3

(B) Answer **any one** of the following :

(a) Define following registers of Micro-processor 8085. 4

(i) Accumulator

(ii) STACK Pointer

(iii) Program Counter

(iv) Instruction Register

(b) Explain following terms related to pentium processor : 4

(i) Dual Pipeline

(ii) Branch Prediction

(iii) On chip cache

(iv) 64 bit data BUS

3. (A) Answer **any two** of the following :

(a) Explain any three features of 8085 Micro-processor. 3

(b) Explain the function of following pins of 8085 Micro-processor : 3

(i) X1, X2

(ii) CLK (out)

(iii) RD

(c) List any six features of 8051 Micro-controller. 3

(B) Answer **any one** of the following :

(a) Explain memory map of 8051 Micro-controller. 4

(b) Explain Contention and Polling Access Methods. 4

4. (A) Answer **any two** of the following :

(a) Flag register contain data C5H interpret its meaning. 3

(b) The accumulator contain data 58H and register B contain data 07H. What will be the content of Accumulator after execution of following instruction independently : 3

(i) ADD B

(ii) ORA B

(iii) ANA B

(c) Explain Co-axial Cable in detail. 3

(B) Answer **any one** of the following :

(a) What is Interrupt ? List Hardware Interrupts according to Priority. Explain maskable and non maskable in interrupts 4

(b) Explain the following characteristic of Transmission media : 4

(i) Installation Deficultes

(ii) EMI

(iii) Bank Width

(iv) Attenuation

5. Answer any two of the following :

(a) A block of data is stored from memory location D001H. Length of block is stored at D000H. Write a program to find occurrences of data 02H in given block. Store the number of occurrences at Memory Location D100H. 5

(b) A block of data is stored from memory location D001H to D005H. Copy the contents of block to another block starting from 2501H. 5

(c) Write a program to subtract 3 Byte integer in register EHL from another 3 Byte integer in BCD. The result should be placed in BCD register keeping the integers in EHL undistrubed. 5

OR

5. Answer **any two** of the following :

(a) A block of data is stored in memory location from 3330H. Length of block is stored at 2FFFH. write a program to find 2's compliment of each data in a block and store the result from memory location 4100H. 5

(b) A block of data is stored from memory location C001H and length is stored in C000H. Write a program to find the sum of series and store the sum in CO50H and CO51H. 5

(c) Write a program that divides two 1 byte hex number where the dividend is stored in 4060H and divisor in 406H stored the quotient and remainder in next two consecutive memory location respectively. 5
