DAY - 14 SEAT NUMBER | | | | | | |

2016	III	14	1100	V – 68	(E)

COMPUTER SCIENCE
PAPER - II (D-9)

Time : 3 Hours	4 Pages	Max. Marks : 50

Instructions : *(1) All questions are compulsory.*
(2) Figures to right indicate full marks.
(3) Draw neat diagrams wherever necessary.
(4) Calculators not allowed.

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

(a) _____ is a Micro-controller. 1

(i) 8086

(ii) 8051

(iii) 8088

(iv) 80286

(b) _____ instruction does not affect the Flag. 1

(i) RAR

(ii) CMP C

(iii) XRA

(iv) MOV A,B

(c) If length of cable is very long then _____ is used in between to bring the weakend signal to its original level. 1

(i) MODEM

(ii) HUB

(iii) REPEATER

(iv) ROUTER

(d) _____ instruction is used for 16-bit addition. 1

(i) ADD

(ii) ADI

(iii) ADC

(iv) DAD

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

(a) Differentiate between Micro-controller and a Micro-processor. 3

(b) Explain the following : 3

(i) Accumulator

(ii) Program Counter

(iii) Stack Pointer

(c) Write a short note on MODEM. 3

2. (A) Answer **any two** :

(a) Explain the function of following pins of 8085 : 3

(i) HLDA

(ii) SID

(iii) READY

(b) Discuss in brief the members of X-86 Family begining from 80386 and upwards. 3

(c) Draw the memory register map, of Micro-controller 8051. 3

(B) Answer **any one** :

(a) Draw the labelled internal block diagram of 8085 Micro-processor. 4

(b) Explain in brief programming model of X-86 Family. 4

3. (A) Answer **any two** :

(a) Explain any three Addressing Modes of 8085 with examples. 3

(b) Explain in short : 3

(i) Star Topology

(ii) Bus Topology

(iii) Ring Topology

(c) Distinguish between LAN and WAN. 3

(B) Answer **any one** :

(a) What is an Vectored Interrupt ? State the different hardware interrupts with their priorities and branching adresses. **4**

(b) Explain the advantages of following features of Pentium Processor : **4**

(i) Dual - Pipelining

(ii) Prefetching

(iii) Branch Prediction

(iv) Internal Data Bus

4. (A) Answer **any two** :

(a) What is a Protocol ? Explain the concept of TCP/IP Protocol. **3**

(b) Explain the structure of Fiber Optic Cable. **3**

(c) Draw the labelled diagram of X-86 family Flag Register. **3**

(B) Answer **any one** :

(a) Discuss the Micro-controllers in 8051 family. **4**

(b) Write a note on Ethernet. **4**

5. Answer **any two** :

(a) Write an Assembly Language Program to multiply a number stored at location 1050 with a number at location 1051. Result is 2-byte. Store result at locations 1052 and 1053. **5**

(b) Write an Assembly Language program to transfer a block of memory starting from 1050H to 1059H to a new location starting from 1070H to 1079H. **5**

(c) A two byte number is stored at location C000 H and C001 H. Write on Assembly Language Program to rotate this number to left side by 3 places and store the rotated number in BC register pair. **5**

OR

5. (a) Write an Assembly Language Program to add 2 decimal numbers stored at 1050 H and 1051 H. Store result at 1052 H and 1053 H. **5**

(b) Accumulator contents of 8085 are B7H and register B contents are A5 H. What will be the effect of following instructions on the contents of Accumulator, when executed independently ? **5**

(i) ADI 05

(ii) CMP B

(iii) CMA

(iv) XRA B

(v) ORA B

(c) Write an Assembly Language Program to increment the contents of alternate memory locations each by two from 1051 H to 1060 H. **5**

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