Class: 12th **Subject : Computer Science II**

March 2016

Time: 2.00 hrs **Marks : 50**

Q. 1 (A) Select the correct alternative & rewrite. **(4)**

a) _____ is a Micro Controller.
i) 8086 ii) 8051
iii) 8088 iv) 80286

b) _____ instruction does not affect the Flag.
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.
i) MODEM ii) HUB
iii) REPEATER iv) ROUTER

d) _____ instruction is used for 16 bit addition.
i) ADD ii) ADI
iii) ADC iv)DAD

(B) Answer any two of the following : **(6)**

a) Differentiate between Micro-controller and a Micro-processor.
b) Explain the following.
i) Accumulator ii) Program Counter iii) Stack Pointer
c) Write a short note on MODEM

Q. 2 (A) Answer any two : **(6)**

a) Explain the function of following pins of 8085.
i) HLDA ii) SID iii) READY
b) Discuss in brief the members of X-86 Family beginning from 80386 and upward.
c) Draw memory register map of Micro-Controller 8051

(B) Answer any one : **(4)**

a) Draw the labeled internal diagram of 8085 Micro-processor
b) Explain in brief programming model of X-86 family.

Q. 3 (A) Answer any two : **(6)**

a) Explain any three Addressing Modes of 8085 with examples.
b) Explain in short :
i) Star Topoology ii) Bus Topology iii) Ring Topology
c) Distinguish between LAN and WAN.

(B) Answer any one : **(4)**

a) What is Vectored interrupt ? State the different hardware interrupts with their priorities and branching addresses.
b) Explain the advantages of following features of Pentium processor :
i) Dual - pipelining ii) prefetching
iii) Branch Prediction iv) Internal Data Bus

Q. 4 (A) Answer any two : (6)

a) What is a Protocol ? Explain the concept of TCP/IP Protocol

b) Explain the structure of Fiber Optic Cable.

c) Draw the lebelled diagram of X-86 family Flag Register

(B) Answer any one : (4)

a) Discuss the Micro-controllers in 8051 family.

b) Write a note on Ethernet

Q. 5 (A) Answer any two : (10)

a) Write an Assembly Language Program in multiply a member stored at location 1050 with a number at location 1051. Result is 2-byts. Stored result at locations 1052 and 1053.

b) Write an Assembly Language Program is transfer a block starting from 1050H and 1059H to a new location starting from 1070H to 1079H.

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 stored the rotated number in BC register pair.

OR

a) Write an assembly language program to add 2 decimal numbers stored at 1050H and 1051H. Stored result at 1052 H and 1053 H

b) Accumulator content of 8085 are B>H and register B contents are A5H. What will be the effect of following instruction on the content of Accumulator, when executed independently.

i) ADI OS ii) CMP B

ii) 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 1061 H.