(21)

Exam.Code:0922
Sub. Code: 7966

1059

B.E. (Information Technology) Fourth Semester

ITE-404: Microprocessor

(Common for ITE-404)

(Batch 2014-2015)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

I. Answer the following:-

a) What is the importance of PSW and PC?

b) What is the difference between JMP and CALL instructions?

c) A memory chip with length x width as 128K x 16 has ..... data buses and ..... address buses.

d) How are interrupts classified in 8085 processor?

e) How many number of bytes and Machine Cycles are consumed by following instructions: PUSH , XTHL. (5x2)

UNIT – I

II. What is the significance of demultiplexing of buses in 8085 microprocessor? What do the following instructions do? How many bytes do they consume? Which all flags are affected by them? SHLD, RP. (5,5)

III. Give the differences between Memory mapped I/O and Peripheral I/O. Draw timing diagram of DCR instruction. (5,5)

IV. Write a program to count number of 0's and 1's of a data stored in register B. Store the number of 1's in register H and number of 0's in register L. (5,5)

UNIT – II

V. Write a subroutine to perform following function:

Load H and L registers indirectly through DE i.e load register L with the contents of memory location pointed by contents of DE and load register H with the contents of succeeding memory location. b) Write a program to enable all the interrupts of 8085. Mask all the interrupts of 8085 except RST6.5. (5,5)

P.T.O.

VI. Write a set of instructions to cause a delay using loop within loop. Calculate the maximum delay caused by this technique. Assume that the processor is running at 1Mhz. (10)

VII. With the help of block diagram, explain the working of Programmable Peripheral Interface 8255. (10)

x-x-x