

S.B. Roll No. \_\_\_\_\_

## MICROPROCESSOR

4th Exam/ECE/Comp/2565/6460/6269/2562/Dec'11

Time Allowed:3 Hrs

Max marks =75

### Section-A

Note: Attempt all Questions.

15x1=15 Marks

Q.1 A). Do as directed:

- i. RAM stands for \_\_\_\_\_.
- ii. The most important register in the arithmetic unit is the \_\_\_\_\_.
- iii. When any interrupt is recognized, the 8085 automatically \_\_\_\_\_ the interrupt system.
- iv. The SIM instruction allow us to \_\_\_\_\_ the interrupt mask.
- v. The mnemonics used in writing a program is called \_\_\_\_\_ language.
- vi. \_\_\_\_\_ is used to hold the memory address of the next instruction to be executed.
- vii. Each instruction contains two parts : operation code (opcode) and \_\_\_\_\_.
- viii. What is the addressing mode used in instruction LDA 0345 H ?
- ix. PPI stands for \_\_\_\_\_.
- x. The 8253 contains three independent 16-bit \_\_\_\_\_.
- xi. The normal operation of a microprocessor can also be interrupted by abnormal conditions or special instructions. Such an interrupt is called \_\_\_\_\_ interrupt.
- xii. Which of the following interrupt is unmaskable interrupt ?

B) Answer questions (xiii) to (xv) with respect to 8085 microprocessor.

- xiii. How many lines are there in data bus ?
- xiv. How many I/O ports can be accessed by memory mapped method ?
- xv. What is the length of stack pointer?

### Section-B

Note: Attempt any Six Questions

6x5=30 Marks

- i. Explain what is the function of ALU ?
- ii. Explain the basic concept of memory mapping .
- iii. Explain the maskable and non maskable interrupt .
- iv. Explain the instruction cycle and machine cycle.
- v. Explain what is 8251 ?
- vi. Explain the function of parity flag and carry flag in 8051.
- vii. Explain the register indirect addressing mode with suitable example.
- viii. What is the difference between RLC and RAR Instruction?
- ix. What are handshake signals?

### Section-C

Note: Attempt any three Questions

(10x3= 30 Marks)

1. Explain the programmable interval timer 8253.
2. Explain the functions of the following signals of 8085
  - i.  $\overline{INTA}$
  - ii. INTR
  - iii. HOLD
  - iv. HLDA
  - v. READY
3. What is DMA data transfer scheme ? Discuss the function of DMA data controller 8257.
4. Explain what operation is performed when the following instructions are executed :
  - a. DAD rp
  - b. DAA
  - c. CMA
  - d. CMPM
  - e. CMP r
5. Write short notes on following
  - a. Memory Mapped I/o scheme
  - b. Evolution of Microprocessor



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**PUBLICHEALTH ENGG. DRAWING**

4<sup>th</sup> Exam Civil/ 5174/6751/Dec'11

Duration 4 Hrs.

100 Marks:

Note: Attempt any four questions. All questions carry equal marks.

1. Draw the cross section of a U shaped drain with its foundation.
2. Draw the cross section of a circular brick masonry sewer.
3. Draw the cross section of soak pit for 10 users.
4. Draw the cross section of an inspection chamber.
5. Draw the plan of bathroom showing positions of lavatory, bathtub, washbasin, taps and showers.
6. Draw the cross section a septic tank for 10 users.