

xv) What is PSW? How many flags in 8051 microcontroller? Name them.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Draw and explain pin configuration of 8085 microprocessor.
- Q.4 What are different types of groups of instructions in 8085 microprocessor?
- Q.5 Draw and explain block diagram of 8255.
- Q.6 Draw and explain architecture of 8051 microprocessor.
- Q.7 What are different addressing modes used in 8051 microcontroller?

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4th Sem. / Instrumentation & Control

Subject : Microprocessors, Microcontrollers and their applications

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 a) 8085 microprocessor has _____ pins IC.
- b) What is purpose of bus?
- c) What is use of accumulator?
- d) 8085 microprocessor has _____ flags.
- e) Expand ALE.
- f) Function of HOLD is _____
- g) Define opcode.
- h) What are status signals?
- i) What is Machine code?
- j) Define addressing mode.

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- k) Define instruction.
- l) Give example of non maskable interrupt.
- m) PPI Stands for_____.
- n) SFR stands for_____.
- o) Compiler is used for_____.
- p) 8051 microcontroller has _____ pins.
- q) 8051 is called 16 bit microcontroller. (TRUE/FALSE)
- r) Rom stands for_____.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) What are different types of buses in 8085 microprocessor?
 - ii) Write a short note on evolution of microprocessor.
 - iii) Explain the terms stack and stack pointer.

- iv) Name different types of flags in 8085 microprocessor
- v) Write a short note on serial I/O control section of 8085 microprocessor.
- vi) Draw block diagram of 8085 micro-processor.
- vii) What do you understand by instruction format? Explain
- viii) Write an assembly language program for addition of two 8 bit numbers
- ix) Explain memory mapped I/O and I/O mapped schemes.
- x) Explain hardware interrupts.
- xi) Name commonly used interfacing chips
- xii) What is difference between microcontroller and microprocessor?
- xiii) What are different interrupts of 8051 microcontroller?
- xiv) Differentiate between assembler and compiler.