

Microprocessor & Microcontroller  
(Common to ETC & CSE)  
4th semester

1- Answer all question (10x2=20)

- What is microprocessor?
- What is microcomputer?
- What is Super Computer?
- What is Stack?
- What is Flags?
- What is the function of registers?
- What is Buses?
- What is the function of Accumulator?
- What is GPR?
- What is SPR?

2- Answer any six question (6x5=30)

- Differentiate between microprocessor & microcomputer?
- Differentiate between GPR & SPR?
- ~~Diff~~ Explain different types of Buses with neat & clean Diagram?
- explain different types of flags?
- What is Timing & control module of 8085 microprocessor?
- What is stack, stack top & stack pointer?
- What are the arithmetic & logic unit of 8085 mp?
- What is interrupt? Write in ascending order?

JANUARY '12

## Long Question

2. Answer any ~~three~~  $(2 \times 10 = 20)$
3. Explain with neat & clean diagram about architecture of 8085 microprocessor?
4. Explain with neat & clean diagram about pin diagram of 8085 microprocessor?
5. What are the interrupts in 8085 mp?  
Explain masking of interrupt: SIM & RIM?
5. Explain the three units of 8085 mp?

Full marks - 80

(10 x 2 = 20 marks)

1. Answer all the Question

- (a) What is addressing modes?
- (b) Define opcode?
- (c) Define operand?
- (d) Define T state?
- (e) Define Fetch cycle?
- (f) Define Machine cycle?
- (g) Define Instruction cycle?
- (h) What is Assembler?

(i) What is Assembly language?

(j) What are the full form of CISC & RISC.

2. Answer any six (6 x 5 = 30 marks)

- (a) Differentiate between one byte, two byte & three byte instruction?
- (b) Explain Addressing modes in instruction with suitable example?
- (c) Write a program for comparison between two numbers?
- (d) Explain Subroutine?
- (e) Write a program for largest number in an Array?
- (f) Write a program for addition for two 8 bit no & summation is 8 bit?
- (g) Draw a timing diagram for MOV operation?

Answer any three (3 x 10 = 30 marks)

- 3. Explain deferred instruction set in 8085?
- 4. Explain about memory & I/O addressing?
- 5. Write a program for smallest number in an array?
- 6. Draw a neat sketch for timing diagram for 8085 instruction

- (a) memory read
  - (b) memory write
  - (c) I/O read
  - (d) I/O write
- (4 x 2 1/2 = 10 marks)

JAN / 10 / Monday

Day (016-350) / Wk-04

Th-3 microprocessors & microcontroller  
4th sem (ETC & CSE) F.M-80

1. Answer all the question  $10 \times 2 = 20$  marks)

- (a) Define interfacing?
- (b) Define mapping?
- (c) Define PPI?
- (d) What is USART?
- (e) What is CISC & RISC?
- (f) What is interrupts?
- (g) Define microcontroller?
- (h) Define maskable interrupt?
- (i) Define non maskable interrupt?
- (j) Define interrupt cycle?

2. Answer any Six  $6 \times 5 = 30$  marks

- (a) Explain about memory mapping & I/O mapping?
- (b) Explain about 8086 instruction set & programming?
- (c) Explain about Addressing modes of 8086?
- (d) Differentiate between microprocessor & microcontroller?
- (e) Describe different addressing modes of 8086 with example?
- (f) Explain about CISC processor?
- (g) Explain about RAM memories?

Answer any three question  $3 \times 10 = 30$  marks

3. Explain about pin diagram of 8255 (PPI)?
4. Explain about internal architecture of 8086?
5. Explain architecture of 8051 microprocessor?
6. Explain Traffic light control system. Write a interface program using 8255.