

**SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS,  
FEROZEPUR**

ROLL NO : 

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 Total number of pages: [2]

Total number of questions: 09

**B-Tech. CSE/ 4<sup>th</sup> Sem**

**Microprocessor and Assembly Language Programming**

Subject Code: BTCS-404A / 104 (RG/RP)

Paper ID: M/18

*2011 batch onwards.*

Time allowed: 3 Hrs

Max Marks: 60

**Important Instructions:**

- All Questions are compulsory
- Assume any missing data

**Part-A (10x2 marks)**

Q1) Answer in brief:

- (a) How many address lines are necessary to address eight mega bytes of memory?
- (b) Explain the purpose of status signals in 8085  $\mu P$ ?
- (c) What is the use of ALE signal in 8085  $\mu P$ ?
- (d) Differentiate between Data bus and Address bus?
- (e) Describe briefly Instruction Format of 8085  $\mu P$ ?
- (f) Start:     MOV A,5FH  
                  CMA  
                  XRA A  
JZ: Start     what will be the result of this Program?
- (g) What are functions of SID and SOD signals in 8085  $\mu P$ ?
- (h) Explain the functions of following instructions?  
      a) STAX 3000H  
      b) LDAX 3000H
- (i) Differentiate between Synchronous and Asynchronous Bus?
- (j) Describe Pentium Processors?

**Part-B (5x8 marks)**

Q2) Draw and explain a Pin Diagram of 8085  $\mu$ P in detail? (CO1)

OR

Explain different classification and applications of recent microprocessors? (CO1)

Q3) Explain various addressing modes used in 8086  $\mu$ P with examples? (CO2)

OR

What is the use of Interrupt? Differentiate between mask able interrupt and Non mask able Interrupt? (CO2)

Q4) Write a assembly language program to add two 16 bit numbers?

OR

Explain the functions of following data transfer instructions with examples? (CO3)

a) LHL.

b) RAL & RAR

c) ADI & SBB

d) INX & CMA

Q5) What is the difference between Serial interface and Parallel interface?

Explain 8251 I/O processor in detail??

(CO4)

OR

Explain 8255 programmable peripheral interface in detail?

(CO4)

Q6) Draw a traffic light system with 8085  $\mu$ P with example in detail?

(CO5)

OR

Explain the architecture of 8086 microprocessor?

(CO5)

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