

PCTE Institute of Engineering & Technology, Ludhiana

B.Tech CSE 4th Semester BTES 401-18 COMPUTER ORGANIZATION & ARCHITECTURE PRESENTATION SYNOPSIS

TOPIC: Program to save contents of address 3500H in $\ C$ register .

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1. INTRODUCTION TO THE TOPIC-

The 8085 microprocessor holds a significant place in the history of computing, representing an essential phase in early computer architectures. Our focus is on a specific program designed for the 8085. This program accomplishes an intriguing task – fetching data from a particular memory location (address 3500 H) and placing it into the C register.

2. MAIN POINTS & SUB-POINTS TO BE COVERED IN PRESENTATION-

- **❖** Introduction
- Memory and Registers
- ❖ Address 3500H
- Assembly language
- Program Execution
- Conclusion

3. KEY APPLICATION AREAS OF TOPIC –

Embedded Systems: In embedded systems where 8085 microprocessors are utilized, the program can be applied to efficiently manage and process specific data stored at address 3500H. This is common in applications like consumer electronics, automative electronics, automative systems and industrial control.

Communication Systems: This program can play a key role in handling specific data transmission requirements. It could be utilized in tasks such as managing communication buffers or addressing specific data packets.

4. Syntax and Use of commands –

MOV (Move) Command:

Syntax: MOV destination, source

Use: Transfers data from the source to the destination.

Example: MOV B, A copies the contents of register A to register B.

LDA (Load Accumulator) Command:

Syntax: LDA memory_address

Use: Loads the contents of the specified memory address into the

accumulator.

Example: LDA 3500H loads the data from memory address 3500 H

into the accumulator.

HLT (Halt) Command:

Syntax: HLT

Use: Halts the microprocessor, bringing it to a stop.

Example: HLT instructs the processor to halt its operation.

5. CONCLUSION-In conclusion, our exploration into the program designed for the 8085 microprocessor, focusing on the retrieval and storage of data from

address 3500 H into the C register, unveils a fundamental aspect of microprocessor functionality. Through this exercise, we've navigated the intricacies of assembly language programming, delving into the hexadecimal addressing system and the utilization of instructions like MOV for seamless data transfer.

6. REFERENCE LINKS-

1) https://www.geeksforgeeks.org/8085-program-move-blocks-bits-source-location-destination-location/