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| **Opcode** | **Operand** | **Explanation of Instruction** | **Description** |
| **MOV** | **Rd, Rs****M, Rs****Rd, M** | Copy from source (Rs) to destination (Rd) | This instruction copies the contents of the source register into the destination register; the contents of the source register are not altered. If one of the operands is a memory location, its location is specified by the contents of the HL registers.**Example: MOV B, C or MOV B, M** |
| **MVI** | **Rd, data****M, data** | Move immediate 8-bit | The 8-bit data is stored in the destination register or memory. If the operand is a memory location, its location is specified by the contents of the HL registers.**Example: MVI B, 57H or MVI M, 57H** |
| **LDA** | **16-bit address** | Load accumulator | The contents of a memory location, specified by a 16-bit address in the operand, are copied to the accumulator. The contents of the source are not altered.**Example: LDA 2034H** |
| **LXI** | **Reg. pair, 16-bit data** | Load register pair immediate | The instruction loads 16-bit data in the register pair designated in the operand.E**xample: LXI H, 2034H or LXI H, XYZ** |
| **LHLD** | **16-bit address** | Load H and L registers direct | The instruction copies the contents of the memory location pointed out by the 16-bit address into register L and copies the contents of the next memory location into register H. The contents of source memory locations are not altered.**Example: LHLD 2040H** |
| **STA** | **16-bit address** | 16-bit address | The contents of the accumulator are copied into the memory location specified by the operand. This is a 3-byte instruction, the second byte specifies the low-order address and the third byte specifies the high-order address.**Example: STA 4350H** |
| **STAX** | **Reg. pair** | Store accumulator indirect | The contents of the accumulator are copied into the memory location specified by the contents of the operand (register pair). The contents of the accumulator are not altered.**Example: STAX B** |
| **SHLD** | **16-bit address** | Store H and L registers direct | The contents of register L are stored into the memory location specified by the 16-bit address in the operand and the contents of H register are stored into the next memory location by incrementing the operand. The contents of registers HL are not altered. This is a 3-byte instruction, the second byte specifies the low-order address and the third byte specifies the high-order address.**Example: SHLD 2470H** |
| **OUT** | **8-bit port address** | Output data from accumulator to a port with 8-bit address | The contents of the accumulator are copied into the I/O port specified by the operand.**Example: OUT F8H** |
| **IN** | **8-bit port address** | Input data to accumulator from a port with 8-bit address | The contents of the input port designated in the operand are read and loaded into the accumulator.**Example: IN 8CH** |