

Mnemonics	Hex codes	Mnemonics	Hex codes
MOV A, D	7A	MOV D, E	53
MOV A, E	7B	MOV D, H	54
MOV A, H	7C	MOV D, L	55
MOV A, L	7D	MOV D, M	56
MOV A, M	7E	MOV E, A	5F
MOV B, A	47	MOV E, B	58
MOV B, B	40	MOV E, C	59
MOV B, C	41	MOV E, D	5A
MOV B, D	42	MOV E, E	5B
MOV B, E	43	MOV E, H	5C
MOV B, H	44	MOV E, L	5D
MOV B, L	45	MOV E, M	5E
MOV B, M	46	MOV H, A	67
MOV C, A	4F	MOV H, B	60
MOV C, B	48	MOV H, C	61
MOV C, C	49	MOV H, D	62
MOV C, D	4A	MOV H, E	63
MOV C, E	4B	MOV H, H	64
MOV C, H	4C	MOV H, L	65
MOV C, L	4D	MOV H, M	66
MOV C, M	4E	MOV L, A	6F
MOV D, A	57	MOV L, B	68
MOV D, B	50	MOV L, C	69
MOV D, C	51	MOV L, D	6A
MOV D, D	52	MOV L, E	6B

B.10

8085 MICROPROCESSOR

Mnemonics	Hex codes	Mnemonics	Hex codes
MOV L, H	6C	ORA L	B5
MOV L, L	6D	ORA M	B6
MOV L, M	6E	ORI	F6
MOV M, A	77	OUT	D3
MOV M, B	70	PCHL	E9
MOV M, C	71	POP B	C1
MOV M, D	72	POP D	D1
MOV M, E	73	POP H	E1
MOV M, H	74	POP PSW	F1
MOV M, L	75	PUSH B	C5
MVI A	3E	PUSH D	D5
MVI B	06	PUSH H	E5
MVI C	0E	PUSH PSW	F5
MVI D	16	RAL	17
MVI E	1E	RAR	1F
MVI H	26	RC	D8
MVI L	2E	RET	C9
MVI M	36	RIM	20
NOP	00	RLC	07
ORA A	B7	RM	F8
ORA B	B0	RNC	D0
ORA C	B1	RNZ	C0
ORA D	B2	RP	F0
ORA E	B3	RPE	E8
ORA H	B4	RPO	E0

M	
RR	
RST	
RZ	
SBE	
SBI	
SHI	
SIM	
SPI	
STA	
STA	

Mnemonics	Hex codes	Mnemonics	Hex codes
RRC	0F	STAX D	12
RST 0	C7	STC	37
RST 1	CF	SUB A	97
RST 2	D7	SUB B	90
RST 3	DF	SUB C	91
RST 4	E7	SUB D	92
RST 5	EF	SUB E	93
RST 6	F7	SUB H	94
RST 7	FF	SUB L	95
RZ	C8	SUB M	96
SBB A	9F	SUI	D6
<u>SBB B</u>	98	<u>XCHG</u>	EB
SBB C	99	XRA A	AF
SBB D	9A	XRA B	A8
SBB E	9B	XRA C	A9
SBB H	9C	XRA D	AA
SBB L	9D	XRA E	AB
SBB M	9E	XRA H	AC
SBI	DE	XRA L	AD
SHLD	22	XRA M	AE
SIM	30	XRI	EE
SPHL	F9	XTHL	E3
STA	32		
STAX B	02		

(c) 8085 Instructions in the order of their Hex codes

Hex codes	Mnemonics	Hex codes	Mnemonics
00	NOP	1C	INR E
01	LXI B, 16-bit Data	1D	DCR E
02	STAX B	1E	MVI E
03	INX B	1F	RAR
04	INR B	20	RIM
05	DCR B	21	LXI H
06	MVI B, 8-bit Data	22	SHLD
07	RLC	23	INX H
09	DAD B	24	INR H
0A	LDAX B	25	DCR H
0B	DCX B	26	MVI H
0C	INR C	27	DAA
0D	DCR C	29	DAD H
0E	MVI C	2A	LHLD
0F	RRC	2B	DCX H
11	LXI D	2C	INR L
12	STAX D	2D	DCR L
13	INX D	2E	MVI L, 8-bit Data
14	INR D	2F	CMA
15	DCR D	30	SIM
16	MVI D	31	LXI SP, 16-bit Data
17	RAL	31	LXI SP, 16-bit Data
19	DAD D	32	STA 16-bit address
1A	LDAX D	33	INX SP
1B	DCX D	34	INR M

HL → 2050
 A → 50
 ← 50 ←

Hex codes	Mnemonics	Hex codes	Mnemonics
35	DCR M	4F	MOV C, A
36	MVI M, 8-bit Data	50	MOV D, B
37	STC	51	MOV D, C
39	DAD SP	52	MOV D, D
3A	LDA 16-bit address	53	MOV D, E
3B	DCX SP	54	MOV D, H
3C	INR A	55	MOV D, L
3D	DCR A	56	MOV D, M
3E	MVI A, 8-bit Data	57	MOV D, A
3F	CMC	58	MOV E, B
40	MOV B, B	59	MOV E, C
41	MOV B, C	5A	MOV E, D
42	MOV B, D	5B	MOV E, E
43	MOV B, E	5C	MOV E, H
44	MOV B, H	5D	MOV E, L
45	MOV B, L	5E	MOV E, M
46	MOV B, M	5F	MOV E, A
47	MOV B, A	60	MOV H, B
48	MOV C, B	61	MOV H, C
49	MOV C, C	62	MOV H, D
4A	MOV C, D	63	MOV H, E
4B	MOV C, E	64	MOV H, H
4C	MOV C, H	65	MOV H, L
4D	MOV C, L	66	MOV H, M
4E	MOV C, M	67	MOV H, A

Hex codes	Mnemonics	Hex codes	Mnemonics
68	MOV L, B	81	ADD C
69	MOV L, C	82	ADD D
6A	MOV L, D	83	ADD E
6B	MOV L, E	84	ADD H
6C	MOV L, H	85	ADD L
6D	MOV L, L	86	ADD M
6E	MOV L, M	87	ADD A
6F	MOV L, A	88	ADC B
70	MOV M, B	89	ADC C
71	MOV M, C	8A	ADC D
72	MOV M, D	8B	ADC E
73	MOV M, E	8C	ADC H
74	MOV M, H	8D	ADC L
75	MOV M, L	8E	ADC M
76	HLT	8F	ADC A
77	MOV M, A	90	SUB B
78	MOV A, B	91	SUB C
79	MOV A, C	92	SUB D
7A	MOV A, D	93	SUB E
7B	MOV A, E	94	SUB H
7C	MOV A, H	95	SUB L
7D	MOV A, L	96	SUB M
7E	MOV A, M	97	SUB A
7F	MOV A, A	98	SBB B
80	ADD B	99	SBB C

HEX	MNEMONIC		HEX	MNEMONIC
C2	JNZ	16-Bit	7D	MOV A,L
F2	JP JNZ	16-Bit	7E	MOV A,M
EA	JPE	16-Bit	47	MOV B,A
E2	JPO	16-Bit	40	MOV B,B
CA	JZ	16-Bit	41	MOV B,C
3A	LDA	16-Bit	42	MOV B,D
0A	LDAX B		43	MOV B,E
1A	LDAX D		44	MOV B,H
2A	LHLD	16-Bit	45	MOV B,L
01	LXI B,16-Bit		46	MOV B,M
11	LXI D,16-Bit		4F	MOV C,A
21	LXI H,16-Bit		48	MOV C,B
31	LXI SP,16-Bit		49	MOV C,C
7F	MOV A,A		4A	MOV C,D
78	MOV A,B		4B	MOV C,E
79	MOV A,C		4C	MOV C,H
7A	MOV A,D		4D	MOV C,L
7B	MOV A,E		4E	MOV C,M
7C	MOV A,H		57	MOV D,A
1F	RAR		50	MOV D,B
			51	MOV D,C

- NOTE : 1. Byte Instruction : Operand R,M or implicit
 2. Byte Instruction : Operand 8-Bit
 3. Byte Instruction : Operand 16-Bit