

## OPCODES TABLE OF INTEL 8085

| S.N. | Mnemonics  | Opcode |
|------|------------|--------|
| 1    | ACI Data   | CE     |
| 2    | ADC A      | 8F     |
| 3    | ADC B      | 88     |
| 4    | ADC C      | 89     |
| 5    | ADC D      | 8A     |
| 6    | ADC E      | 8B     |
| 7    | ADC H      | 8C     |
| 8    | ADC L      | 8D     |
| 9    | ADC M      | 8E     |
| 10   | ADD A      | 87     |
| 11   | ADD B      | 80     |
| 12   | ADD C      | 81     |
| 13   | ADD D      | 82     |
| 14   | ADD E      | 83     |
| 15   | ADD H      | 84     |
| 16   | ADD L      | 85     |
| 17   | ADD M      | 86     |
| 18   | ADI Data   | C6     |
| 19   | ANA A      | A7     |
| 20   | ANA B      | A0     |
| 21   | ANA C      | A1     |
| 22   | ANA D      | A2     |
| 23   | ANA E      | A3     |
| 24   | ANA H      | A4     |
| 25   | ANA L      | A5     |
| 26   | ANA M      | A6     |
| 27   | ANI Data   | E6     |
| 28   | CALL Label | CD     |
| 29   | CC Label   | DC     |
| 30   | CM Label   | FC     |
| 31   | CMA        | 2F     |
| 32   | CMC        | 3F     |
| 33   | CMP A      | BF     |
| 34   | CMP B      | B8     |
| 35   | CMP C      | B9     |
| 36   | CMP D      | BA     |
| 37   | CMP E      | BB     |

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| S.N. | Mnemonics       | Opcode |
|------|-----------------|--------|
| 38   | CMP H           | BC     |
| 39   | CMP L           | BD     |
| 40   | CMP M           | BD     |
| 41   | CNC Label       | D4     |
| 42   | CNZ Label       | C4     |
| 43   | CP Label        | F4     |
| 44   | CPE Label       | EC     |
| 45   | CPI Data        | FE     |
| 46   | CPO Label       | E4     |
| 47   | CZ Label        | CC     |
| 48   | DAA             | 27     |
| 49   | DAD B           | 09     |
| 50   | DAD D           | 19     |
| 51   | DAD H           | 29     |
| 52   | DAD SP          | 39     |
| 53   | DCR A           | 3D     |
| 54   | DCR B           | 05     |
| 55   | DCR C           | 0D     |
| 56   | DCR D           | 15     |
| 57   | DCR E           | 1D     |
| 58   | DCR H           | 25     |
| 59   | DCR L           | 2D     |
| 60   | DCR M           | 35     |
| 61   | DCX B           | 0B     |
| 62   | DCX D           | 1B     |
| 63   | DCX H           | 2B     |
| 64   | DCX SP          | 3B     |
| 65   | DI              | F3     |
| 66   | EI              | FB     |
| 67   | HLT             | 76     |
| 68   | IN Port-address | DB     |
| 69   | INR A           | 3C     |
| 70   | INR B           | 04     |
| 71   | INR C           | 0C     |
| 72   | INR D           | 14     |
| 73   | INR E           | 1C     |
| 74   | INR H           | 24     |
| 75   | INR L           | 2C     |
| 76   | INR M           | 34     |
| 77   | INX B           | 03     |

| S.N. | Mnemonics    | Opcode |
|------|--------------|--------|
| 78   | INX D        | 13     |
| 79   | INX H        | 23     |
| 80   | INX SP       | 33     |
| 81   | JC Label     | DA     |
| 82   | JM Label     | FA     |
| 83   | JMP Label    | C3     |
| 84   | JNC Label    | D2     |
| 85   | JNZ Label    | C2     |
| 86   | JP Label     | F2     |
| 87   | JPE Label    | EA     |
| 88   | JPO Label    | E2     |
| 89   | JZ Label     | CA     |
| 90   | LDA Address  | 3A     |
| 91   | LDAX B       | 0A     |
| 92   | LDAX D       | 1A     |
| 93   | LHLD Address | 2A     |
| 94   | LXI B        | 01     |
| 95   | LXI D        | 11     |
| 96   | LXI H        | 21     |
| 97   | LXI SP       | 31     |
| 98   | MOV A, A     | 7F     |
| 99   | MOV A, B     | 78     |
| 100  | MOV A, C     | 79     |
| 101  | MOV A, D     | 7A     |
| 102  | MOV A, E     | 7B     |
| 103  | MOV A, H     | 7C     |
| 104  | MOV A, L     | 7D     |
| 105  | MOV A, M     | 7E     |
| 106  | MOV B, A     | 47     |
| 107  | MOV B, B     | 40     |
| 108  | MOV B, C     | 41     |
| 109  | MOV B, D     | 42     |
| 110  | MOV B, E     | 43     |
| 111  | MOV B, H     | 44     |
| 112  | MOV B, L     | 45     |
| 113  | MOV B, M     | 46     |
| 114  | MOV C, A     | 4F     |
| 115  | MOV C, B     | 48     |
| 116  | MOV C, C     | 49     |
| 117  | MOV C, D     | 4A     |

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| S.N. | Mnemonics | Opcode |
|------|-----------|--------|
| 118  | MOV C, E  | 4B     |
| 119  | MOV C, H  | 4C     |
| 120  | MOV C, L  | 4D     |
| 121  | MOV C, M  | 4E     |
| 122  | MOV D, A  | 57     |
| 123  | MOV D, B  | 50     |
| 124  | MOV D, C  | 51     |
| 125  | MOV D, D  | 52     |
| 126  | MOV D, E  | 53     |
| 127  | MOV D, H  | 54     |
| 128  | MOV D, L  | 55     |
| 129  | MOV D, M  | 56     |
| 130  | MOV E, A  | 5F     |
| 131  | MOV E, B  | 58     |
| 132  | MOV E, C  | 59     |
| 133  | MOV E, D  | 5A     |
| 134  | MOV E, E  | 5B     |
| 135  | MOV E, H  | 5C     |
| 136  | MOV E, L  | 5D     |
| 137  | MOV E, M  | 5E     |
| 138  | MOV H, A  | 67     |
| 139  | MOV H, B  | 60     |
| 140  | MOV H, C  | 61     |
| 141  | MOV H, D  | 62     |
| 142  | MOV H, E  | 63     |
| 143  | MOV H, H  | 64     |
| 144  | MOV H, L  | 65     |
| 145  | MOV H, M  | 66     |
| 146  | MOV L, A  | 6F     |
| 147  | MOV L, B  | 68     |
| 148  | MOV L, C  | 69     |
| 149  | MOV L, D  | 6A     |
| 150  | MOV L, E  | 6B     |
| 151  | MOV L, H  | 6C     |
| 152  | MOV L, L  | 6D     |
| 153  | MOV L, M  | 6E     |
| 154  | MOV M, A  | 77     |
| 155  | MOV M, B  | 70     |
| 156  | MOV M, C  | 71     |
| 157  | MOV M, D  | 72     |

| S.N. | Mnemonics        | Opcode |
|------|------------------|--------|
| 158  | MOV M, E         | 73     |
| 159  | MOV M, H         | 74     |
| 160  | MOV M, L         | 75     |
| 161  | MVI A, Data      | 3E     |
| 162  | MVI B, Data      | 06     |
| 163  | MVI C, Data      | 0E     |
| 164  | MVI D, Data      | 16     |
| 165  | MVI E, Data      | 1E     |
| 166  | MVI H, Data      | 26     |
| 167  | MVI L, Data      | 2E     |
| 168  | MVI M, Data      | 36     |
| 169  | NOP              | 00     |
| 170  | ORA A            | B7     |
| 171  | ORA B            | B0     |
| 172  | ORA C            | B1     |
| 173  | ORA D            | B2     |
| 174  | ORA E            | B3     |
| 175  | ORA H            | B4     |
| 176  | ORA L            | B5     |
| 177  | ORA M            | B6     |
| 178  | ORI Data         | F6     |
| 179  | OUT Port-Address | D3     |
| 180  | PCHL             | E9     |
| 181  | POP B            | C1     |
| 182  | POP D            | D1     |
| 183  | POP H            | E1     |
| 184  | POP PSW          | F1     |
| 185  | PUSH B           | C5     |
| 186  | PUSH D           | D5     |
| 187  | PUSH H           | E5     |
| 188  | PUSH PSW         | F5     |
| 189  | RAL              | 17     |
| 190  | RAR              | 1F     |
| 191  | RC               | D8     |
| 192  | RET              | C9     |
| 193  | RIM              | 20     |
| 194  | RLC              | 07     |
| 195  | RM               | F8     |
| 196  | RNC              | D0     |
| 197  | RNZ              | C0     |

| S.N. | Mnemonics    | Opcode |
|------|--------------|--------|
| 198  | RP           | F0     |
| 199  | RPE          | E8     |
| 200  | RPO          | E0     |
| 201  | RRC          | 0F     |
| 202  | RST 0        | C7     |
| 203  | RST 1        | CF     |
| 204  | RST 2        | D7     |
| 205  | RST 3        | DF     |
| 206  | RST 4        | E7     |
| 207  | RST 5        | EF     |
| 208  | RST 6        | F7     |
| 209  | RST 7        | FF     |
| 210  | RZ           | C8     |
| 211  | SBB A        | 9F     |
| 212  | SBB B        | 98     |
| 213  | SBB C        | 99     |
| 214  | SBB D        | 9A     |
| 215  | SBB E        | 9B     |
| 216  | SBB H        | 9C     |
| 217  | SBB L        | 9D     |
| 218  | SBB M        | 9E     |
| 219  | SBI Data     | DE     |
| 220  | SHLD Address | 22     |
| 221  | SIM          | 30     |
| 222  | SPHL         | F9     |
| 223  | STA Address  | 32     |
| 224  | STAX B       | 02     |
| 225  | STAX D       | 12     |
| 226  | STC          | 37     |
| 227  | SUB A        | 97     |
| 228  | SUB B        | 90     |
| 229  | SUB C        | 91     |
| 230  | SUB D        | 92     |
| 231  | SUB E        | 93     |
| 232  | SUB H        | 94     |
| 233  | SUB L        | 95     |
| 234  | SUB M        | 96     |
| 235  | SUI Data     | D6     |
| 236  | XCHG         | EB     |
| 237  | XRA A        | AF     |

| S.N. | Mnemonics | Opcode |
|------|-----------|--------|
| 238  | XRA B     | A8     |
| 239  | XRA C     | A9     |
| 240  | XRA D     | AA     |
| 241  | XRA E     | AB     |
| 242  | XRA H     | AC     |
| 243  | XRA L     | AD     |
| 244  | XRA M     | AE     |
| 245  | XRI Data  | EE     |
| 246  | XTHL      | E3     |