

OPCODES TABLE OF INTEL 8085

OpCodes of Intel 8085 in Alphabetical Order

| Sr. No. | Mnemonics, Operand | Opcode | Bytes |
|---------|--------------------|--------|-------|
| 1. | ACI Data | CE | 2 |
| 2. | ADC A | 8F | 1 |
| 3. | ADC B | 88 | 1 |
| 4. | ADC C | 89 | 1 |
| 5. | ADC D | 8A | 1 |
| 6. | ADC E | 8B | 1 |
| 7. | ADC H | 8C | 1 |
| 8. | ADC L | 8D | 1 |
| 9. | ADC M | 8E | 1 |
| 10. | ADD A | 87 | 1 |
| 11. | ADD B | 80 | 1 |
| 12. | ADD C | 81 | 1 |
| 13. | ADD D | 82 | 1 |
| 14. | ADD E | 83 | 1 |
| 15. | ADD H | 84 | 1 |
| 16. | ADD L | 85 | 1 |
| 17. | ADD M | 86 | 1 |
| 18. | ADI Data | C6 | 2 |
| 19. | ANA A | A7 | 1 |
| 20. | ANA B | A0 | 1 |
| 21. | ANA C | A1 | 1 |
| 22. | ANA D | A2 | 1 |
| 23. | ANA E | A3 | 1 |
| 24. | ANA H | A4 | 1 |
| 25. | ANA L | A5 | 1 |
| 26. | ANA M | A6 | 1 |
| 27. | ANI Data | E6 | 2 |
| 28. | CALL Label | CD | 3 |
| 29. | CC Label | DC | 3 |
| 30. | CM Label | FC | 3 |
| 31. | CMA | 2F | 1 |
| 32. | CMC | 3F | 1 |
| 33. | CMP A | BF | 1 |
| 34. | CMP B | B8 | 1 |
| 35. | CMP C | B9 | 1 |
| 36. | CMP D | BA | 1 |
| 37. | CMP E | BB | 1 |
| 38. | CMP H | BC | 1 |
| 39. | CMP L | BD | 1 |
| 40. | CMP M | BD | 1 |
| 41. | CNC Label | D4 | 3 |
| 42. | CNZ Label | C4 | 3 |

| Sr. No. | Mnemonics, Operand | Opcode | Bytes |
|---------|--------------------|--------|-------|
| 43. | CP Label | F4 | 3 |
| 44. | CPE Label | EC | 3 |
| 45. | CPI Data | FE | 2 |
| 46. | CPO Label | E4 | 3 |
| 47. | CZ Label | CC | 3 |
| 48. | DAA | 27 | 1 |
| 49. | DAD B | 09 | 1 |
| 50. | DAD D | 19 | 1 |
| 51. | DAD H | 29 | 1 |
| 52. | DAD SP | 39 | 1 |
| 53. | DCR A | 3D | 1 |
| 54. | DCR B | 05 | 1 |
| 55. | DCR C | 0D | 1 |
| 56. | DCR D | 15 | 1 |
| 57. | DCR E | 1D | 1 |
| 58. | DCR H | 25 | 1 |
| 59. | DCR L | 2D | 1 |
| 60. | DCR M | 35 | 1 |
| 61. | DCX B | 0B | 1 |
| 62. | DCX D | 1B | 1 |
| 63. | DCX H | 2B | 1 |
| 64. | DCX SP | 3B | 1 |
| 65. | DI | F3 | 1 |
| 66. | EI | FB | 1 |
| 67. | HLT | 76 | 1 |
| 68. | IN Port-address | DB | 2 |
| 69. | INR A | 3C | 1 |
| 70. | INR B | 04 | 1 |
| 71. | INR C | 0C | 1 |
| 72. | INR D | 14 | 1 |
| 73. | INR E | 1C | 1 |
| 74. | INR H | 24 | 1 |
| 75. | INR L | 2C | 1 |
| 76. | INR M | 34 | 1 |
| 77. | INX B | 03 | 1 |
| 78. | INX D | 13 | 1 |
| 79. | INX H | 23 | 1 |
| 80. | INX SP | 33 | 1 |
| 81. | JC Label | DA | 3 |
| 82. | JM Label | FA | 3 |
| 83. | JMP Label | C3 | 3 |
| 84. | JNC Label | D2 | 3 |
| 85. | JNZ Label | C2 | 3 |
| 86. | JP Label | F2 | 3 |
| 87. | JPE Label | EA | 3 |
| 88. | JPO Label | E2 | 3 |
| 89. | JZ Label | CA | 3 |

| Sr. No. | Mnemonics, Operand | Opcode | Bytes |
|---------|--------------------|--------|-------|
| 90. | LDA Address | 3A | 3 |
| 91. | LDAX B | 0A | 1 |
| 92. | LDAX D | 1A | 1 |
| 93. | LHLD Address | 2A | 3 |
| 94. | LXI B | 01 | 3 |
| 95. | LXI D | 11 | 3 |
| 96. | LXI H | 21 | 3 |
| 97. | LXI SP | 31 | 3 |
| 98. | MOV A, A | 7F | 1 |
| 99. | MOV A, B | 78 | 1 |
| 100. | MOV A, C | 79 | 1 |
| 101. | MOV A, D | 7A | 1 |
| 102. | MOV A, E | 7B | 1 |
| 103. | MOV A, H | 7C | 1 |
| 104. | MOV A, L | 7D | 1 |
| 105. | MOV A, M | 7E | 1 |
| 106. | MOV B, A | 47 | 1 |
| 107. | MOV B, B | 40 | 1 |
| 108. | MOV B, C | 41 | 1 |
| 109. | MOV B, D | 42 | 1 |
| 110. | MOV B, E | 43 | 1 |
| 111. | MOV B, H | 44 | 1 |
| 112. | MOV B, L | 45 | 1 |
| 113. | MOV B, M | 46 | 1 |
| 114. | MOV C, A | 4F | 1 |
| 115. | MOV C, B | 48 | 1 |
| 116. | MOV C, C | 49 | 1 |
| 117. | MOV C, D | 4A | 1 |
| 118. | MOV C, E | 4B | 1 |
| 119. | MOV C, H | 4C | 1 |
| 120. | MOV C, L | 4D | 1 |
| 121. | MOV C, M | 4E | 1 |
| 122. | MOV D, A | 57 | 1 |
| 123. | MOV D, B | 50 | 1 |
| 124. | MOV D, C | 51 | 1 |
| 125. | MOV D, D | 52 | 1 |
| 126. | MOV D, E | 53 | 1 |
| 127. | MOV D, H | 54 | 1 |
| 128. | MOV D, L | 55 | 1 |
| 129. | MOV D, M | 56 | 1 |
| 130. | MOV E, A | 5F | 1 |
| 131. | MOV E, B | 58 | 1 |
| 132. | MOV E, C | 59 | 1 |
| 133. | MOV E, D | 5A | 1 |
| 134. | MOV E, E | 5B | 1 |
| 135. | MOV E, H | 5C | 1 |
| 136. | MOV E, L | 5D | 1 |

| Sr. No. | Mnemonics, Operand | Opcode | Bytes |
|---------|--------------------|--------|-------|
| 137. | MOV E, M | 5E | 1 |
| 138. | MOV H, A | 67 | 1 |
| 139. | MOV H, B | 60 | 1 |
| 140. | MOV H, C | 61 | 1 |
| 141. | MOV H, D | 62 | 1 |
| 142. | MOV H, E | 63 | 1 |
| 143. | MOV H, H | 64 | 1 |
| 144. | MOV H, L | 65 | 1 |
| 145. | MOV H, M | 66 | 1 |
| 146. | MOV L, A | 6F | 1 |
| 147. | MOV L, B | 68 | 1 |
| 148. | MOV L, C | 69 | 1 |
| 149. | MOV L, D | 6A | 1 |
| 150. | MOV L, E | 6B | 1 |
| 151. | MOV L, H | 6C | 1 |
| 152. | MOV L, L | 6D | 1 |
| 153. | MOV L, M | 6E | 1 |
| 154. | MOV M, A | 77 | 1 |
| 155. | MOV M, B | 70 | 1 |
| 156. | MOV M, C | 71 | 1 |
| 157. | MOV M, D | 72 | 1 |
| 158. | MOV M, E | 73 | 1 |
| 159. | MOV M, H | 74 | 1 |
| 160. | MOV M, L | 75 | 1 |
| 161. | MVI A, Data | 3E | 2 |
| 162. | MVI B, Data | 06 | 2 |
| 163. | MVI C, Data | 0E | 2 |
| 164. | MVI D, Data | 16 | 2 |
| 165. | MVI E, Data | 1E | 2 |
| 166. | MVI H, Data | 26 | 2 |
| 167. | MVI L, Data | 2E | 2 |
| 168. | MVI M, Data | 36 | 2 |
| 169. | NOP | 00 | 1 |
| 170. | ORA A | B7 | 1 |
| 171. | ORA B | B0 | 1 |
| 172. | ORA C | B1 | 1 |
| 173. | ORA D | B2 | 1 |
| 174. | ORA E | B3 | 1 |
| 175. | ORA H | B4 | 1 |
| 176. | ORA L | B5 | 1 |
| 177. | ORA M | B6 | 1 |
| 178. | ORI Data | F6 | 2 |
| 179. | OUT Port-Address | D3 | 2 |
| 180. | PCHL | E9 | 1 |
| 181. | POP B | C1 | 1 |
| 182. | POP D | D1 | 1 |
| 183. | POP H | E1 | 1 |

| Sr. No. | Mnemonics, Operand | Opcode | Bytes |
|---------|--------------------|--------|-------|
| 184. | POP PSW | F1 | 1 |
| 185. | PUSH B | C5 | 1 |
| 186. | PUSH D | D5 | 1 |
| 187. | PUSH H | E5 | 1 |
| 188. | PUSH PSW | F5 | 1 |
| 189. | RAL | 17 | 1 |
| 190. | RAR | 1F | 1 |
| 191. | RC | D8 | 1 |
| 192. | RET | C9 | 1 |
| 193. | RIM | 20 | 1 |
| 194. | RLC | 07 | 1 |
| 195. | RM | F8 | 1 |
| 196. | RNC | D0 | 1 |
| 197. | RNZ | C0 | 1 |
| 198. | RP | F0 | 1 |
| 199. | RPE | E8 | 1 |
| 200. | RPO | E0 | 1 |
| 201. | RRC | 0F | 1 |
| 202. | RST 0 | C7 | 1 |
| 203. | RST 1 | CF | 1 |
| 204. | RST 2 | D7 | 1 |
| 205. | RST 3 | DF | 1 |
| 206. | RST 4 | E7 | 1 |
| 207. | RST 5 | EF | 1 |
| 208. | RST 6 | F7 | 1 |
| 209. | RST 7 | FF | 1 |
| 210. | RZ | C8 | 1 |
| 211. | SBB A | 9F | 1 |
| 212. | SBB B | 98 | 1 |
| 213. | SBB C | 99 | 1 |
| 214. | SBB D | 9A | 1 |
| 215. | SBB E | 9B | 1 |
| 216. | SBB H | 9C | 1 |
| 217. | SBB L | 9D | 1 |
| 218. | SBB M | 9E | 1 |
| 219. | SBI Data | DE | 2 |
| 220. | SHLD Address | 22 | 3 |
| 221. | SIM | 30 | 1 |
| 222. | SPHL | F9 | 1 |
| 223. | STA Address | 32 | 3 |
| 224. | STAX B | 02 | 1 |
| 225. | STAX D | 12 | 1 |
| 226. | STC | 37 | 1 |
| 227. | SUB A | 97 | 1 |
| 228. | SUB B | 90 | 1 |
| 229. | SUB C | 91 | 1 |
| 230. | SUB D | 92 | 1 |

| Sr. No. | Mnemonics, Operand | Opcode | Bytes |
|---------|--------------------|--------|-------|
| 231. | SUB E | 93 | 1 |
| 232. | SUB H | 94 | 1 |
| 233. | SUB L | 95 | 1 |
| 234. | SUB M | 96 | 1 |
| 235. | SUI Data | D6 | 2 |
| 236. | XCHG | EB | 1 |
| 237. | XRA A | AF | 1 |
| 238. | XRA B | A8 | 1 |
| 239. | XRA C | A9 | 1 |
| 240. | XRA D | AA | 1 |
| 241. | XRA E | AB | 1 |
| 242. | XRA H | AC | 1 |
| 243. | XRA L | AD | 1 |
| 244. | XRA M | AE | 1 |
| 245. | XRI Data | EE | 2 |
| 246. | XTHL | E3 | 1 |