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### **A. Pengertian Kode ASCII**

ASCII (*American Standard Code for Information Interchange*) merupakan Kode Standar Amerika untuk pertukaran Informasi atau sebuah standar internasional dalam pengkodean huruf dan simbol seperti Unicode dan Hex tetapi ASCII lebih bersifat universal.

### **B. Tabel Kode ASCII**

<b>Nilai ANSI ASCII (Desimal)</b>	<b>Nilai Unicode (Heksa Desimal)</b>	<b>Biner</b>	<b>Karakter</b>
<b>0</b>	00	00000000	NUL
<b>1</b>	01	00000001	SOH
<b>2</b>	02	00000010	STX
<b>3</b>	03	00000011	ETX
<b>4</b>	04	00000100	EOT
<b>5</b>	05	00000101	ENQ
<b>6</b>	06	00000110	ACK
<b>7</b>	07	00000111	BEL
<b>8</b>	08	00001000	BS
<b>9</b>	09	00001001	HT
<b>10</b>	0A	00001010	LF
<b>11</b>	0B	00001011	VT
<b>12</b>	0C	00001100	FF
<b>13</b>	0D	00001101	CR
<b>14</b>	0E	00001110	SO
<b>15</b>	0F	00001111	SI
<b>16</b>	10	00010000	DLE
<b>17</b>	11	00010001	DC1

<b>18</b>	12	00010010	DC2
<b>19</b>	13	00010011	DC3
<b>20</b>	14	00010100	DC4
<b>21</b>	15	00010101	NAK
<b>22</b>	16	00010110	SYN
<b>23</b>	17	00010111	ETB
<b>24</b>	18	00011000	CAN
<b>25</b>	19	00011001	EM
<b>26</b>	1A	00011010	SUB
<b>27</b>	1B	00011011	ESC
<b>28</b>	1C	00011100	FS
<b>29</b>	1D	00011101	GS
<b>30</b>	1E	00011110	RS
<b>31</b>	1F	00011111	US
<b>32</b>	20	00100000	space
<b>33</b>	21	00100001	!
<b>34</b>	22	00100010	"
<b>35</b>	23	00100011	#
<b>36</b>	24	00100100	\$
<b>37</b>	25	00100101	%
<b>38</b>	26	00100110	&
<b>39</b>	27	00100111	'
<b>40</b>	28	00101000	(
<b>41</b>	29	00101001	)
<b>42</b>	2A	00101010	*
<b>43</b>	2B	00101011	+
<b>44</b>	2C	00101100	,
<b>45</b>	2D	00101101	-
<b>46</b>	2E	00101110	.
<b>47</b>	2F	00101111	/

<b>48</b>	30	00110000	0
<b>49</b>	31	00110001	1
<b>50</b>	32	00110010	2
<b>51</b>	33	00110011	3
<b>52</b>	34	00110100	4
<b>53</b>	35	00110101	5
<b>54</b>	36	00110110	6
<b>55</b>	37	00110111	7
<b>56</b>	38	00111000	8
<b>57</b>	39	00111001	9
<b>58</b>	3A	00111010	:
<b>59</b>	3B	00111011	;
<b>60</b>	3C	00111100	<
<b>61</b>	3D	00111101	=
<b>62</b>	3E	00111110	>
<b>63</b>	3F	00111111	?
<b>64</b>	40	01000000	@
<b>65</b>	41	01000001	A
<b>66</b>	42	01000010	B
<b>67</b>	43	01000011	C
<b>68</b>	44	01000100	D
<b>69</b>	45	01000101	E
<b>70</b>	46	01000110	F
<b>71</b>	47	01000111	G
<b>72</b>	48	01001000	H
<b>73</b>	49	01001001	I
<b>74</b>	4A	01001010	J
<b>75</b>	4B	01001011	K
<b>76</b>	4C	01001100	L
<b>77</b>	4D	01001101	M

<b>78</b>	4E	01001110	N
<b>79</b>	4F	01001111	O
<b>80</b>	50	01010000	P
<b>81</b>	51	01010001	Q
<b>82</b>	52	01010010	R
<b>83</b>	53	01010011	S
<b>84</b>	54	01010100	T
<b>85</b>	55	01010101	U
<b>86</b>	56	01010110	V
<b>87</b>	57	01010111	W
<b>88</b>	58	01011000	X
<b>89</b>	59	01011001	Y
<b>90</b>	5A	01011010	Z
<b>91</b>	5B	01011011	[
<b>92</b>	5C	01011100	\
<b>93</b>	5D	01011101	]
<b>94</b>	5E	01011110	^
<b>95</b>	5F	01011111	_
<b>96</b>	60	01100000	`
<b>97</b>	61	01100001	a
<b>98</b>	62	01100010	b
<b>99</b>	63	01100011	c
<b>100</b>	64	01100100	d
<b>101</b>	65	01100101	e
<b>102</b>	66	01100110	f
<b>103</b>	67	01100111	g
<b>104</b>	68	01101000	h
<b>105</b>	69	01101001	i
<b>106</b>	6A	01101010	j
<b>107</b>	6B	01101011	k

<b>108</b>	6C	01101100	l
<b>109</b>	6D	01101101	m
<b>110</b>	6E	01101110	n
<b>111</b>	6F	01101111	o
<b>112</b>	70	01110000	p
<b>113</b>	71	01110001	q
<b>114</b>	72	01110010	r
<b>115</b>	73	01110011	s
<b>116</b>	74	01110100	t
<b>117</b>	75	01110101	u
<b>118</b>	76	01110110	v
<b>119</b>	77	01110111	w

**C. Daftar Perintah Bahasa Assembly:**

<b>Instruksi</b>	<b>Keterangan Singkatan</b>
<b>ACALL</b>	<b>Absolute Call</b>
<b>ADD</b>	<b>Add</b>
<b>ADDC</b>	<b>Add with Carry</b>
<b>AJMP</b>	<b>Absolute Jump</b>
<b>ANL</b>	<b>AND Logic</b>
<b>CJNE</b>	<b>Compare and Jump if Not Equal</b>
<b>CLR</b>	<b>Clear</b>
<b>CPL</b>	<b>Complement</b>
<b>DA</b>	<b>Decimal Adjust</b>
<b>DEC</b>	<b>Decrement</b>
<b>DIV</b>	<b>Divide</b>
<b>DJNZ</b>	<b>Decrement and Jump if Not Zero</b>
<b>INC</b>	<b>Increment</b>
<b>JB</b>	<b>Jump if Bit Set</b>
<b>JBC</b>	<b>Jump if Bit Set and Clear Bit</b>
<b>JC</b>	<b>Jump if Carry Set</b>
<b>JMP</b>	<b>Jump to Address</b>

<b>JNB</b>	<b>Jump if Not Bit Set</b>
<b>JNC</b>	<b>Jump if Carry Not Set</b>
<b>JNZ</b>	<b>Jump if Accumulator Not Zero</b>
<b>JZ</b>	<b>Jump if Accumulator Zero</b>
<b>LCALL</b>	<b>Long Call</b>
<b>LJMP</b>	<b>Long Jump</b>
<b>MOV</b>	<b>Move from Memory</b>
<b>MOVC</b>	<b>Move from Code Memory</b>
<b>MOVB</b>	<b>Move from Extended Memory</b>
<b>MUL</b>	<b>Multiply</b>
<b>NOP</b>	<b>No Operation</b>
<b>ORL</b>	<b>OR Logic</b>
<b>POP</b>	<b>Pop Value From Stack</b>
<b>PUSH</b>	<b>Push Value Onto Stack</b>
<b>RET</b>	<b>Return From Subroutine</b>
<b>RETI</b>	<b>Return From Interrupt</b>
<b>RL</b>	<b>Rotate Left</b>
<b>RLC</b>	<b>Rotate Left through Carry</b>
<b>RR</b>	<b>Rotate Right</b>
<b>RRC</b>	<b>Rotate Right through Carry</b>
<b>SETB</b>	<b>Set Bit</b>
<b>SJMP</b>	<b>Short Jump</b>
<b>SUBB</b>	<b>Subtract With Borrow</b>
<b>SWAP</b>	<b>Swap Nibbles</b>
<b>XCH</b>	<b>Exchange Bytes</b>
<b>XCHD</b>	<b>Exchange Digits</b>
<b>XRL</b>	<b>Exclusive OR Logic</b>