

ANSWER KEY 1

First Name

Last Name

CE 80N Quiz 1, Jan 14, 2016

1. (30 points) Fill in the missing values in the tables below.

Decimal	8-bit Binary	Hexadecimal
22	0001 0110	16
235	1110 1011	EB
127	0111 1111	7F
58	00111010	3A
57	00111001	39
156	10011100	9C
42	0010 1010	0x2A
35	0010 0011	0x23
170	1010 1010	0xAA

2. (12 points) Fill in the missing values in the tables below.

4-bit binary number	10010011	10010011	10010011	10010011
4-bit mask	11000000	11111111	11100000	11111000
Bitwise AND of the above two	10000000	10010011	10000000	10010000

3. (8 points) The following bytes are transmitted over a cable. What should the value of the parity bit be, if it has ODD parity?

Byte Value	Parity Bit
10101010	1
00110010	0
11111111	1
11110000	1

ANSWER KEY 2

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1. (30 points) Fill in the missing values in the tables below.

Decimal	8-bit Binary	Hexadecimal
123	0111 1011	7B
194	1100 0010	C2
205	1100 1101	CD
99	01100011	63
107	01101011	6B
228	11100100	E4
68	0100 0100	0x44
251	1111 1011	0xFB
77	0100 1101	0x4D

2. (12 points) Fill in the missing values in the tables below.

4-bit binary number	00110101	00110101	00110101	00110101
4-bit mask	11111000	10000000	11111111	11110000
Bitwise AND of the above two	00110000	00000000	00110101	00110000

3. (8 points) The following bytes are transmitted over a cable. What should the value of the parity bit be, if it has EVEN parity?

Byte Value	Parity Bit
00110010	1
11110000	0
10101010	0
11000001	1

ANSWER KEY 3

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1. (30 points) Fill in the missing values in the tables below.

Decimal	8-bit Binary	Hexadecimal
221	1101 1101	DD
141	1000 1101	8D
49	0011 0001	31
27	00011011	1B
91	01011011	5B
195	11000011	C3
165	1010 0101	0xA5
63	0011 1111	0x3F
51	0011 0011	0x33

2. (12 points) Fill in the missing values in the tables below.

4-bit binary number	10100011	10100011	10100011	10100011
4-bit mask	11111111	11110000	11111000	00000000
Bitwise AND of the above two	10100011	10100000	10100000	00000000

3. (8 points) The following bytes are transmitted over a cable. What should the value of the parity bit be, if it has EVEN parity?

Byte Value	Parity Bit
11110000	0
10101010	0
00000000	0
00110010	1