

Q1. The binary number 10101 is equivalent to decimal number	
1.	19
2.	12
3.	27
4.	21
Answer: 4	1
Q2. The universal gate is	
1.	NAND gate
2.	OR gate
3.	AND gate
4.	None of the above
Answer: 1	1
Q3. The in	verter is
1.	NOT gate
2.	OR gate
	AND gate
4.	None of the above
Answer : 1	1
Q4. The in	puts of a NAND gate are connected together. The resulting circuit is
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. 1.	OR gate
2.	AND gate
3.	NOT gate
4.	None of the above
Answer: 3	
Q5. The NOR gate is OR gate followed by	



AND gate
NAND gate

3. NOT gate

4. None of the above	
Answer: 3	
Q6. The NAND gate is AND gate followed by	
1. NOT gate	
2. OR gate	
3. AND gate	
4. None of the above	
Answer: 1	
Q7. Digital circuit can be made by the repeated use of	
1. OR gates	
2. NOT gates	
3. NAND gates	
4. None of the above	
Answer: 3	
Q8. The only function of NOT gate is to	
1. Stop signal	
2. Invert input signal	
3. Act as a universal gate	
4. None of the above	
Answer: 2	
Q9. When an input signal 1 is applied to a NOT gate, the output is	
1. 0	
2. 1	
3. Either 0 & 1	
4. None of the above	



- 2. High
- 3. alternately high and low
- 4. may be high or low depending on relative magnitude of inputs

Answer: 2

Explanation: In OR any input high means high output.

Q14. Decimal number 10 is equal to binary number

- 1. 1110
- 2. 1010
- 3. 1001
- 4. 1000

Answer: 2

Explanation:1010 = 8 + 2 = 10 in decimal.

Q15. Both OR and AND gates can have only two inputs.

- 1. True
- 2. False

Answer: 2

Explanation: Any number of inputs are possible.

Q16. A device which converts BCD to seven segments is called

- 1. Encoder
- 2. Decoder
- 3. Multiplexer
- 4. None of these

Answer: 2

Explanation: Decoder converts binary/BCD to alphanumeric.



Answer: 1 Q10. In Boolean algebra, the bar sign (-) indicates 1. OR operation 2. AND operation 3. NOT operation 4. None of the above Answer: 3 Q11. The resolution of an nbit DAC with a maximum input of 5 V is 5 mV. The value of nis 1. 8 2. 9 3. 10 4. 11 Answer: 3 Explanation: (5/2N-1)1000 = 5 or N = 10Q12. 2's complement of binary number 0101 is 1. 1011 2. 1111 3. 1101 4. 1110 Answer: 1 Explanation: 1's complement of 0101 is 1010 and 2's complement is 1010+1 = 1011. Q13. An OR gate has 4 inputs. One input is high and the other three are low. The output is

1. Low



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Q17. In 2's complement representation the number 11100101 represents the decimal number

- 1. +37
- 2. -31
- 3. +27
- 4. -27

Answer: 4

Explanation:

A=11100101. Therefore $\bar{A}=00011010$ and $A'=\bar{A}+1=00011011=16+8+2+1=27$. Therefore A=-27.

Q18. A decade counter skips

- 1. binary states 1000 to 1111
- 2. binary states 0000 to 0011
- 3. binary states 1010 to 1111
- 4. binary states 1111 to higher

Answer: 3

Explanation:A decade counter counts from 0 to 9. It has 4 flip-flops. The states skipped are 10 to 15 or 1010 to 1111.

Q19. BCD input 1000 is fed to a 7 segment display through a BCD to 7 segment decoder/driver. The segments which will lit up are

- 1. a, b, d
- 2. a, b, c
- 3. all
- 4. a, b, g, c, d

Answer: 3

Explanation:1000 equals decimal 8 Therefore all segments will lit up.



- 1. 5
- 2. 10
- 3. 32
- 4. Infinite

Answer: 1

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Students