

Schmitt Inverter Questions

Question 1

A Schmitt inverter has similar transfer characteristics as a:

- A. AND gate
- B. OR gate
- C. NOT gate
- D. EOR gate

Question 2

The output of a Schmitt inverter can:

- A. take any value because it is analogue
- B. only be logic 1 or logic 0 and nothing else
- C. be logic 1 or logic 0 but can also have values between logic 1 and logic 0
- D. only be 5 volts

Question 3

The unique feature of a Schmitt inverter is:

- A. the output is digital but the input can be analogue or digital
- B. the output changes from logic 1 to logic 0 very quickly
- C. the output is the opposite of the input
- D. the output changes at a different point depending on whether the input is rising or falling

Question 4

With slowly changing input signals, a Schmitt inverter is more suitable than a comparator circuit because:

- A. a Schmitt inverter has two different thresholds but a comparator circuit only has one threshold voltage
- B. a comparator circuit has two different thresholds but a Schmitt inverter only has one threshold voltage
- C. the threshold voltage of a comparator circuit can be changed
- D. the output of a Schmitt inverter is digital but the output of a comparator circuit is analogue

Question 5

To de-bounce a switch, which component or circuit would **NOT** be suitable

- A. Schmitt inverter
- B. Monostable
- C. NOT gate
- D. Capacitor

Question 6

Which circuit or component would switch bounce **NOT** affect?

- A. A counter circuit
- B. An LED indicator
- C. A flip flop circuit
- D. A bistable circuit

Question 7

When a Schmitt inverter is used to de-bounce switches, the time constant of the RC circuit must be:

- A. less than the period of the switch bounce
- B. equal to the period of the switch bounce
- C. greater than the period of the switch bounce
- D. any value as it does not matter

Answers

1. C
2. B
3. D
4. A
5. C
6. B
7. C

Website

http://www.pfnicholls.com/Electronics_Resources/QuestionIndex.html

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