Inverting Amplifier Questions

Question 1

The equation for the gain of an amplifier is:

A. Gain = $V_{out} \div V_{in}$
B. Gain = $V_{out} \times V_{in}$
C. Gain = $V_{out} + V_{in}$
D. Gain = $V_{out} - V_{in}$

Question 2

The equation for the gain of an inverting amplifier is:

A. Gain = $R_f \div R_i$
B. Gain = $-R_f \div R_i$
C. Gain = $R_i \div R_f$
D. Gain = $-R_i \div R_f$

Question 3

For an inverting amplifier, R_i = 20 kΩ and R_f = 100 kΩ. The gain of the amplifier is:

A. − 100
B. − 50
C. − 20
D. − 5

Question 4

For an inverting amplifier, R_i = 20 kΩ and R_f = 10 kΩ. The gain of the amplifier is:

A. − 20
B. − 10
C. − 2
D. − 0.5

Question 5

For an inverting amplifier, R_i = 47 kΩ and R_f = 47 kΩ. The gain of the amplifier is:

A. − 94
B. − 47
C. − 1
D. zero

Question 6

An inverting amplifier has a gain of − 2. R_i = 15 kΩ. The value of the feedback resistor is:

A. 30 kΩ
B. 17 kΩ
C. 15 kΩ
D. 13 kΩ
E. 7.5 kΩ

Question 7

An inverting amplifier has a gain of − 0.1. R_i = 68 kΩ. The value of the feedback resistor is:

A. 68 kΩ
B. 6.8 kΩ
C. 680 Ω
D. 68 Ω

Question 8

An inverting amplifier has a gain of − 100. R_f = 1 MΩ. The value of the input resistor is:

A. 1000 kΩ
B. 100 kΩ
C. 10 kΩ
D. 1 kΩ

Question 9

An inverting amplifier has a gain of − 0.75. R_f = 47 kΩ. The most appropriate value of the input resistor from the E24 series of standard values would be:

A. 56 kΩ
B. 62 kΩ
C. 63 kΩ
D. 68 kΩ

Question 10

The minimum resistor value of either the input or feedback resistor should be

A. 1 Ω
B. 10 Ω
C. 100 Ω
D. 1000 Ω

Answers

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

Website

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

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