

Unit 3: Quiz Pool

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Final Grade

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Question scores appear after all grades are posted

Assignment Content



Question 1

In the common mode operational amplifier,

- (A) both inputs are grounded
- (B) the outputs are connected together
- (C) an identical signal appears on both the inputs
- (D) the output signal are in-phase

Question 2

The output of a particular Op-amp increases 8V in 12 μ s. The slew rate is

- (A) 96 V/ μ s
- (B) 0.67 V/ μ s
- (C) 1.5 μ s/V

Question 3

The Op-amp can amplify

- (A) a.c. signals only
- (B) d.c. signals only
- (C) both a.c. and d.c. signals
- (D) neither d.c. nor a.c. signals

Question 4

Current cannot flow to ground through a virtual ground. True or False?

- (T) True
- (F) False

Question 5



Feedback

Feedback for student

Your instructor hasn't added feedback

Which of the following electrical characteristics is not exhibited by an ideal op-amp?

- (A) Infinite voltage gain
 - (B) Infinite bandwidth
 - (C) Infinite output resistance
 - (D) Infinite slew rate
-

Question 6

How many pins of IC 741 are used for connections?

- (A) 5
 - (B) 6
 - (C) 7
 - (D) 8
-

Question 7

The non-inverting input is applied at pin 3 of IC 741. True or False?

- (T) True
 - (F) False
-

Question 8

The inverting input is applied at pin 3 of IC 741. True or False?

- (T) True
 - (F) False
-

Question 9

An ideal op-amp has infinite bandwidth. True or False?

- (T) True
 - (F) False
-

Question 10

An ideal op-amp has zero slew rate. True or False?

- (T) True
 - (F) False
-

Question 11

An ideal op-amp has infinite input offset voltage. True or False?

An ideal op-amp has infinite input offset voltage. True or False?

- True
- False

Question 12

An ideal op-amp has infinite CMRR. True or False?

- True
- False

Question 13

An ideal op-amp has infinite input offset voltage. True or False?

- True
- False

Question 14

The average value of the two currents flowing into the op-amp input terminals is known as

- input offset current
- input bias current
- differential current

Question 15

Which type of feedback is used to operate op-amp as an oscillator?

- negative
- positive

Question 16

Which type of feedback is used to operate op-amp as an amplifier?

- negative
- positive

Question 17

Which of the following op-amp configuration is used as phase shifter?

- inverting op-amp
- non-inverting op-amp

Question 18

Which of the following op-amp configuration is used to isolate cascaded circuits?

- A inverting op-amp
 - B non-inverting op-amp
-

Question 19

Which of the following will you use to convert a square waveform into a triangular waveform?

- A integrator
 - B differentiator
-

Question 20

Which of the following will you use to convert a square waveform into spikes?

- A integrator
 - B differentiator
-

Question 21

Which of the following will you use to convert a triangular waveform into a square waveform?

- A integrator
 - B differentiator
-

Question 22

Which of the following will you use to convert a sine waveform into a cosine waveform?

- A integrator
 - B differentiator
-

Question 23

Which of the following will you use to convert a triangular waveform into a parabolic waveform?

- A integrator
 - B differentiator
-

Question 24

Output of a comparator will always be a square waveform if sine wave is used as input. True or False?

- T True
- F False

Question 25

Which type of ADC uses ramp generating circuit at the time of conversion?

- A successive approximation ADC
 - B counting ADC
 - C flash ADC
-

Question 26

Which type of DAC uses only two different values of resistors?

- A R-2R Ladder
 - B binary weighted resistor
-

Question 27

What will be the output voltage of an open loop amplifier if 15V is applied to inverting terminal and 20V is applied to non-inverting terminal? Assume gain as 2.

- A 10 V
 - B -10 V
-

Question 28

Binary weighted resistor is a A-to-D converter. True or False?

- T True
 - F False
-

Question 29

There are 8 pins in IC 741. True or False?

- T True
 - F False
-

Question 30

Negative feedback op-amp works as an oscillator. True or false?

- T True
 - F False
-

Question 31

Positive feedback op-amp works as an oscillator. True or false?

- True
- False

Question 32

A differentiator converts a triangular waveform into

- spikes
- square waveform
- sine waveform
- parabola

Question 33

When a differential amplifier is operated single-ended

- the output is grounded
- one input is grounded and signal is applied to the other
- both inputs are connected together
- the output is not inverted

Question 34

In differential mode,

- opposite polarity signals are applied to the inputs
- the gain is one
- the outputs are of different amplitudes
- only one supply voltage is used

Question 35

In the common mode,

- both inputs are grounded
- the outputs are connected together
- an identical signal appears on both the inputs
- the output signal are in-phase

Question 36

For an Op-amp with negative feedback, the output is

- equal to the input

- B increased
 - C fed back to the inverting input
 - D fed back to the non-inverting input
-

Question 37

Which of the following is/are correct in relation to a voltage follower?

1. It has a voltage gain of 1
2. It is noninverting
3. It has no feedback resistor

- A Only 1
 - B Only 2
 - C Only 3
 - D Both 1 and 2
 - E Both 1 and 3
 - F Both 2 and 3
 - G All 1, 2 and 3
-

Question 38

The input offset current equals the

- A difference between two base currents
 - B average of two base currents
 - C collector current divided by current gain
-

Question 39

Op-amp integrator uses:

- A Capacitor as feedback element
 - B Resistor as feedback element
 - C Inductor as feedback element
 - D A simple wire as feedback element
-

Question 40

In a differentiator, a capacitor is connected to the input terminal of the inverting amplifier. True or false?

- T True
- F False