Unit 03: Electrical Circuits and Data Acquisition

Author: Steve Gibbs

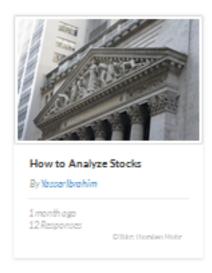
Professor @The Saylor Foundation

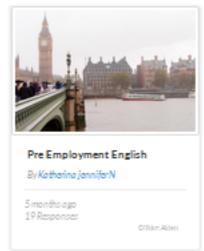
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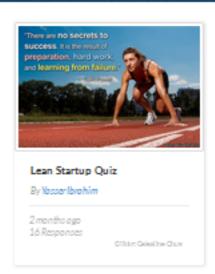
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Jnit (03: Electric	al Circuits	and Data A	Acquisitio	n Questio	ns	

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4.1.1. A 12 bit ADC may have _____ unique output conditions. Author: Steve Gibbs A 12 bit ADC may have ____ unique output conditions. Please choose only one answer: 2[sup]11[/sup] 2[sup]10[/sup] 12[sup]2[/sup] 12[sup]10[/sup] 2[sup]12[/sup] Check the answer of this question online at QuizOver.com: Question: A 12 bit ADC may have unique output conditions Steve @The Saylor Flashcards: http://www.quizover.com/flashcards/a-12-bit-adc-may-have-unique-output-conditions-steve-the-saylor?pdf=3044 Interactive Question: http://www.quizover.com/question/a-12-bit-adc-may-have-unique-output-conditions-steve-the-saylor?pdf=3044

4.1.2. A 6dB attenuator and a 50dB attenuator in series provide a total at...

Author: Steve Gibbs

A 6dB attenuator and a 50dB attenuator in series provide a total attenuation of

Please choose only one answer:

- 300dB
- 56dB
- 5.4dB
- 50dB
- None except this

Check the answer of this question online at QuizOver.com:

Question: A 6dB attenuator and a 50dB attenuator in Steve Gibbs @The Saylor

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4.1.3. A current source
Author: Steve Gibbs
A current source
 Please choose only one answer: Can supply an infinite current upon demand. Supplies a constant current regardless of voltage within practical limits Is the source in use at the present Can supply AC or DC upon demand Supplies current varying linearly with the output voltage
Check the answer of this question online at QuizOver.com: Question: A current source Steve Gibbs @The Saylor Foundat Measurement Quest Flashcards: http://www.quizover.com/flashcards/a-current-source-steve-gibbs-the-saylor-foundat-measurement-quest?pdf=3044 Interactive Question: http://www.quizover.com/question/a-current-source-steve-gibbs-the-saylor-foundat-measurement-quest?pdf=3044

4.1.4. A digital signal				
A digital signal				
 Please choose only one answer: Is represented by numbers ranging from 1 to 10 Corresponds to the output of digital-to-analog converter Is represented by 10 bits of data Takes on discrete values over a range None of the above 				
Check the answer of this question online at QuizOver.com: Question: A digital signal Steve Gibbs @The Saylor Foundat Measurement Quest				
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Interactive Question: http://www.quizover.com/question/a-digital-signal-steve-gibbs-the-saylor-foundat-measurement-quest?pdf=3044				

4.1.5. A signal (in the context of this course) is
Author: Steve Gibbs
A signal (in the context of this course) is
 Please choose only one answer: An indication to start or stop an activity An unexpected event An electrical current A detectable quantity used to communicate information None except this
Check the answer of this question online at QuizOver.com: Question: A signal in the context of this course is Steve Gibbs Saylor Foundat
Flashcards: http://www.quizover.com/flashcards/a-signal-in-the-context-of-this-course-is-steve-gibbs-saylor-foundat?pdf=3044
Interactive Question: http://www.quizover.com/question/a-signal-in-the-context-of-this-course-is-steve-gibbs-saylor-foundat?pdf=3044

4. 1.6. A simple way to filter out low frequencies is to place
Author: Steve Gibbs
A simple way to filter out low frequencies is to place
 Please choose only one answer: An inductor in series with the load A capacitor in parallel with the load A capacitor in series with the load A rapid switch in series with the load None except this
Check the answer of this question online at QuizOver.com: Question: A simple way to filter out low frequencies Steve Gibbs @The Saylor
Flashcards: http://www.quizover.com/flashcards/a-simple-way-to-filter-out-low-frequencies-steve-gibbs-the-saylor?pdf=3044
Interactive Question: http://www.quizover.com/question/a-simple-way-to-filter-out-low-frequencies-steve-gibbs-the-saylor?pdf=3044

4.1.7. AC amplitude may be measured by				
Author: Steve Gibbs				
AC amplitude may be measured by				
 Please choose only one answer: Frequency Period Frequency and period Duration Peak-to-peak, RMS, or average amplitude 				
Check the answer of this question online at QuizOver.com: Question: AC amplitude may be measured by Steve Gibbs @The Saylor Foundat Measurement				
Flashcards: http://www.quizover.com/flashcards/ac-amplitude-may-be-measured-by-steve-gibbs-the-saylor-foundat-measure?pdf=3044				
Interactive Question: http://www.quizover.com/question/ac-amplitude-may-be-measured-by-steve-gibbs-the-saylor-foundat-measure?pdf=3044				

4.1.8. Aliasing in signal digitization occurs when
Author: Steve Gibbs
Aliasing in signal digitization occurs when
 Please choose only one answer: A signal is digitized too rapidly A signal is not digitized rapidly enough A signal is not digitized with enough amplitude resolution A connection is mislabeled All including this
Check the answer of this question online at QuizOver.com: Question: Aliasing in signal digitization occurs when Steve Gibbs @The Saylor Flashcards: http://www.quizover.com/flashcards/aliasing-in-signal-digitization-occurs-when-steve-gibbs-the-saylor?pdf=3044 Interactive Question: http://www.quizover.com/question/aliasing-in-signal-digitization-occurs-when-steve-gibbs-the-saylor?pdf=3044

4.1.9. Alternating current				
Author: Steve Gibbs				
Alternating current				
Please choose only one answer: Oscillates at 60 Hz Changes amplitude with time Is always positive Decays with time None except this				
Check the answer of this question online at QuizOver.com: Question: Alternating current Steve Gibbs @The Saylor Foundat Measurement Quest Flashcards: http://www.quizover.com/flashcards/alternating-current-steve-gibbs-the-saylor-foundat-measurement-quest?pdf=3044 Interactive Question: http://www.quizover.com/question/alternating-current-steve-gibbs-the-saylor-foundat-measurement-quest?pdf=3044				

4.1.10. A filter is an AC circuit that separates signals based upon
Author: Steve Gibbs
A filter is an AC circuit that separates signals based upon
Please choose only one answer: Amplitude Voltage Frequency Time Duration
Check the answer of this question online at QuizOver.com: Question: A filter is an AC circuit that separates Steve Gibbs @The Saylor
Flashcards:
http://www.quizover.com/flashcards/a-filter-is-an-ac-circuit-that-separates-steve-gibbs-the-saylor?pdf=3044
Interactive Question: http://www.quizover.com/question/a-filter-is-an-ac-circuit-that-separates-steve-gibbs-the-saylor?pdf=3044

4.1.11. A power gain of 30 dB corresponds to a factor of
Author: Steve Gibbs
A power gain of 30 dB corresponds to a factor of
Please choose only one answer:
• 10
• 30
• 100
• 1000
• 3000
Check the answer of this question online at QuizOver.com: Question: A power gain of 30 dB corresponds to a factor Steve Gibbs @The Measurement
Flashcards: http://www.quizover.com/flashcards/a-power-gain-of-30-db-corresponds-to-a-factor-steve-gibbs-the-measurem?pdf=3044
Interactive Question: http://www.quizover.com/question/a-power-gain-of-30-db-corresponds-to-a-factor-steve-gibbs-the-measurem?pdf=3044

4.1.12. A low-pass filter permits the passage of

Author: Steve Gibbs

A low-pass filter permits the passage of

Please choose only one answer:

- · Low frequency signals
- Small voltages
- Small currents
- DC signals
- All including this

Check the answer of this question online at QuizOver.com:

Question: A low-pass filter permits the passage Steve Gibbs Saylor Foundat

Flashcards:

http://www.quizover.com/flashcards/a-low-pass-filter-permits-the-passage-steve-gibbs-saylor-foundat?pdf=3044

Interactive Question:

http://www.quizover.com/question/a-low-pass-filter-permits-the-passage-steve-gibbs-saylor-foundat?pdf=3044

4.1.13. The nomenclature "live zero" indicates
Author: Steve Gibbs
The nomenclature "live zero" indicates
 Please choose only one answer: A drifting baseline A fluctuating digital readout A non-zero rest state for an analog signal A faulty digital readout None except this
Check the answer of this question online at QuizOver.com: Question: The nomenclature live zero indicates Steve Gibbs Saylor Foundat Measurement
Flashcards: http://www.quizover.com/flashcards/the-nomenclature-live-zero-indicates-steve-gibbs-saylor-foundat-measur?pdf=3044
Interactive Question: http://www.quizover.com/question/the-nomenclature-live-zero-indicates-steve-gibbs-saylor-foundat-measur?pdf=3044

4.1.14. Three resistors (R[sub]1[/sub], R[sub]2[/sub], R[sub]3[/sub]) in se...

Author: Steve Gibbs

Three resistors (R[sub]1[/sub], R[sub]2[/sub], R[sub]3[/sub]) in series present a total resistance of_

Please choose only one answer:

- R[sub]1[/sub] + R[sub]2[/sub] + R[sub]3[/sub]
- 1/R[sub]1[/sub] + 1/R[sub]2[/sub]+1/R[sub]3[/sub]
- R[sub]1[/sub]xR[sub]2[/sub]xR[sub]3[/sub]/(R[sub]1[/sub]+R[sub]2[/sub]+R[sub]3[/sub])
- R[sub]1[/sub]/R[sub]2[/sub] + R[sub]2[/sub]/R[sub]3[/sub] + R[sub]3[/sub]/R[sub]1[/sub]
- None except this

Check the answer of this question online at QuizOver.com:

Question: Three resistors R sub 1 /sub R sub 2 /sub R Steve Gibbs @The Saylor

Flashcards:

http://www.quizover.com/flashcards/three-resistors-r-sub-1-sub-r-sub-2-sub-r-steve-gibbs-the-saylor?pdf=3044

Interactive Question:

http://www.quizover.com/question/three-resistors-r-sub-1-sub-r-sub-2-sub-r-steve-gibbs-the-saylor?pdf=3044

4.1.15. An analog signal _____.

Author: Steve Gibbs	
An analog signal	

Please choose only one answer:

- Is continuously variable over a range
- Takes on a finite number of discrete values
- Is measured in units of electrical current or flow rate
- Is measured by voltage
- · Is determined continuously in time

Check the answer of this question online at QuizOver.com:

Question: An analog signal . Steve Gibbs @The Saylor Foundat Measurement Quest

Flashcards:

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