Section 6-4

G5A01 (C)
What is impedance?
A. The electric charge stored by a capacitor
B. The inverse of resistance
C. The opposition to the flow of current in an AC circuit
D. The force of repulsion between two similar electric fields
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G5A02 (B)
What is reactance?
A. Opposition to the flow of direct current caused by resistance
B. Opposition to the flow of alternating current caused by capacitance or inductance
C. A property of ideal resistors in AC circuits
D. A large spark produced at switch contacts when an inductor is de-energized
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G5A03 (D)
Which of the following causes opposition to the flow of alternating current in an inductor?
A. Conductance
B. Reluctance
C. Admittance
D. Reactance
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G5A04 (C)
Which of the following causes opposition to the flow of alternating current in a capacitor?
A. Conductance
B. Reluctance
C. Reactance
D. Admittance
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G5A05 (D)
How does an inductor react to AC?
A. As the frequency of the applied AC increases, the reactance decreases
B. As the amplitude of the applied AC increases, the reactance increases
C. As the amplitude of the applied AC increases, the reactance decreases
D. As the frequency of the applied AC increases, the reactance increases
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G5A06 (A)
How does a capacitor react to AC?
A. As the frequency of the applied AC increases, the reactance decreases
B. As the frequency of the applied AC increases, the reactance increases
C. As the amplitude of the applied AC increases, the reactance increases
D. As the amplitude of the applied AC increases, the reactance decreases
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G5A07 (D)
What happens when the impedance of an electrical load is equal to the output impedance of a power source, assuming both impedances are resistive?
A. The source delivers minimum power to the load
B. The electrical load is shorted
C. No current can flow through the circuit

D. The source can deliver maximum power to the load
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G5A08 (B)
What is one reason to use an impedance matching transformer?
A. To minimize transmitter power output
B. To maximize the transfer of power
C. To reduce power supply ripple
D. To minimize radiation resistance
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G5A09 (B)
What unit is used to measure reactance?
A. Farad
B. Ohm
C. Ampere
D. Siemens
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G5A10 (D)
Which of the following devices can be used for impedance matching at radio frequencies?
A. A transformer
B. A Pi-network
C. A length of transmission line
D. All these choices are correct
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G5A11 (A)
Which of the following describes one method of impedance matching between two AC circuits?
A. Insert an LC network between the two circuits
B. Reduce the power output of the first circuit
C. Increase the power output of the first circuit
D. Insert a circulator between the two circuits
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G7B09 (C)
What determines the frequency of an LC oscillator?
A. The number of stages in the counter
B. The number of stages in the divider
C. The inductance and capacitance in the tank circuit
D. The time delay of the lag circuit
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