
Technician Question Pool

July 2022 to June 2026

The MORE Project

<http://n2re.org/m-o-r-e-project>



Electronic Components & Circuits

No-Nonsense pages 23 - 26

Resistors, capacitors and capacitance, inductors and inductance, batteries

Resistors control how much current flows in a circuit. Capacitors store energy in an electric field. Inductors are coils of wire that have a magnetic field around the coil when current flows through the wire. Batteries store energy in the form of chemical potential.



T6A01

What electrical component opposes the flow of current in a DC circuit?

- A. Inductor
- B. Resistor
- C. Voltmeter
- D. Transformer



ECCD1 Q1 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T6A01

What electrical component opposes the flow of current in a DC circuit?

- A. Inductor
- B. Resistor**
- C. Voltmeter
- D. Transformer



T6A02

What type of component is often used as an adjustable volume control?

- A. Fixed resistor
- B. Power resistor
- C. Potentiometer
- D. Transformer



ECCD1 Q2 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T6A02

What type of component is often used as an adjustable volume control?

- A. Fixed resistor
- B. Power resistor
- C. Potentiometer**
- D. Transformer



T6A03

What electrical parameter is controlled by a potentiometer?

- A. Inductance
- B. Resistance
- C. Capacitance
- D. Field strength



T6A03

What electrical parameter is controlled by a potentiometer?

- A. Inductance
- B. Resistance**
- C. Capacitance
- D. Field strength



T6A05

What type of electrical component consists of conductive surfaces separated by an insulator?

- A. Resistor
- B. Potentiometer
- C. Oscillator
- D. Capacitor



ECCD1 Q4 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T6A05

What type of electrical component consists of conductive surfaces separated by an insulator?

- A. Resistor
- B. Potentiometer
- C. Oscillator
- D. Capacitor**



T6A04

What electrical component stores energy in an electric field?

- A. Resistor
- B. Capacitor
- C. Inductor
- D. Diode



ECCD1 Q5 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T6A04

What electrical component stores energy in an electric field?

- A. Resistor
- B. Capacitor**
- C. Inductor
- D. Diode



T5C01

What describes the ability to store energy in an electric field?

- A. Inductance
- B. Resistance
- C. Tolerance
- D. Capacitance



ECCD1 Q6 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T5C01

What describes the ability to store energy in an electric field?

- A. Inductance
- B. Resistance
- C. Tolerance
- D. Capacitance**



T5C02

What is the unit of capacitance?

- A. The farad
- B. The ohm
- C. The volt
- D. The henry



ECCD1 Q7 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T5C02

What is the unit of capacitance?

- A. The farad
- B. The ohm
- C. The volt
- D. The henry



T6A07

What electrical component is typically constructed as a coil of wire?

- A. Switch
- B. Capacitor
- C. Diode
- D. Inductor



ECCD1 Q8 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T6A07

What electrical component is typically constructed as a coil of wire?

- A. Switch
- B. Capacitor
- C. Diode
- D. Inductor**



T6A06

What type of electrical component stores energy in a magnetic field?

- A. Varistor
- B. Capacitor
- C. Inductor
- D. Diode



ECCD1 Q9 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T6A06

What type of electrical component stores energy in a magnetic field?

- A. Varistor
- B. Capacitor
- C. Inductor**
- D. Diode



T5C03

What describes the ability to store energy in a magnetic field?

- A. Admittance
- B. Capacitance
- C. Resistance
- D. Inductance



ECED1 Q10 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T5C03

What describes the ability to store energy in a magnetic field?

- A. Admittance
- B. Capacitance
- C. Resistance
- D. Inductance**



ECED1 A10 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T5C04

What is the unit of inductance?

- A. The coulomb
- B. The farad
- C. The henry
- D. The ohm



ECCD1 Q11 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T5C04

What is the unit of inductance?

- A. The coulomb
- B. The farad
- C. The henry**
- D. The ohm



T6A11

Which of the following battery chemistries is not rechargeable?

- A. Nickel-cadmium
- B. Carbon-zinc
- C. Lead-acid
- D. Lithium-ion



ECDD1 Q12 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T6A11

Which of the following battery chemistries is not rechargeable?

- A. Nickel-cadmium
- B. Carbon-zinc**
- C. Lead-acid
- D. Lithium-ion



T6A10

Which of the following battery chemistries is rechargeable?

- A. Nickel-metal hydride
- B. Lithium-ion
- C. Lead-acid
- D. All of these choices are correct



ECCD1 Q13 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project

T6A10

Which of the following battery chemistries is rechargeable?

- A. Nickel-metal hydride
- B. Lithium-ion
- C. Lead-acid
- D. All of these choices are correct**



ECED1 A13 of 13

FCC Tech 7/22 to 6/26
Resistors, Capacitors

n2re.org/m-o-r-e-project



A non-profit initiative by the IEEE and ARDC to increase the numbers of youth (12-18) and non-males in Amateur Radio. Participants earn FCC licenses and receive free 2-way radios.

For MORE information: n2re.org/m-o-r-e-project
Dr. Rebecca Mercuri, Grant Administrator, rtmercuri@ieee.org



n2re.org/m-o-r-e-project