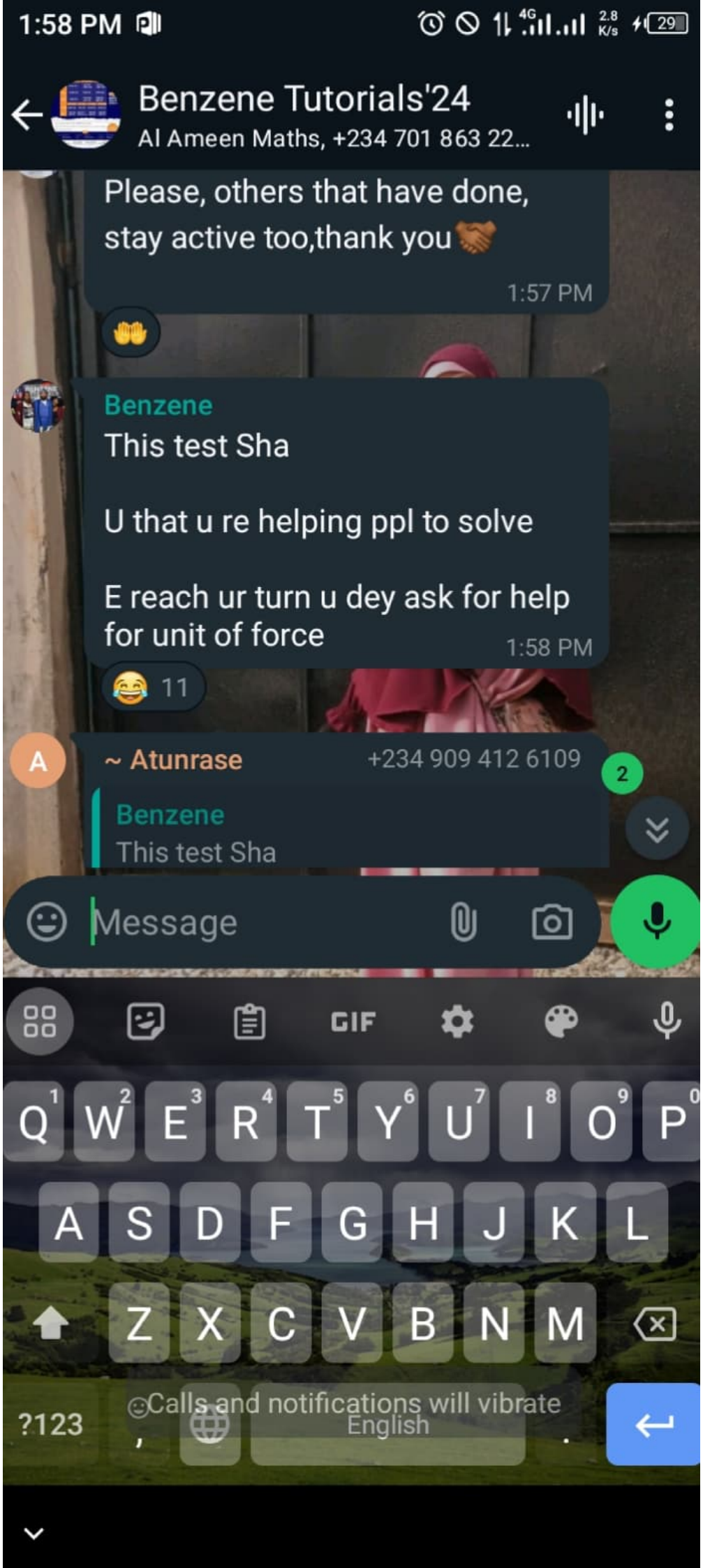
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conductor is called

Select one:

- a. electromagnetic induction
- b. mutual induction
- c. Faraday's law
- d. Electromagnetic interference

Question 9 Not yet answered

Marked out of 1 Flag question

The electric field associated with a uniformly charged hollow metallic sphere is the greatest at:

Select one:

- a. **the center of the sphere.**
- b. **the sphere's outer surface.**
- c. **the sphere's inner surface.**
- d. **infinity.**

Question 10 Not yet answered

Marked out of 1 Flag question

The energy band in which free electrons exist is

Select one:

- a. **first band**
- b. **second band**

Select one:

- a. **Electric current**
- b. **Electric flux**
- c. **Electric field intensity**
- d. **Electric potential**

Question 6 Not yet answered

Marked out of 1 Flag question

In a parallel-plate capacitor, the distance d between the plates is 3cm, the area of each plate is $15cm^2$, and the voltage across them is 5V. Calculate the capacitance. Take permittivity of free space to be $\varepsilon_0 = 8.854 \times 10^{-12} C/Nm^2$ $\varepsilon_0 = 8.854 \times 10^{-12} C/Nm^2$.

Select one:

- a. $3.33 \times 10^{-13} F 3.33 \times 10^{-13} F$
- b. $9.31 \times 10^{-11} F 9.31 \times 10^{-11} F$
- c. $4.43 \times 10^{-13} F 4.43 \times 10^{-13} F$
- d. $1.29 \times 10^{-12} 1.29 \times 10^{-12}$ F

Question 7 Not yet answered

Marked out of 1 Flag question

Which of following circuit element stores energy in electromagnetic field?

Question 12

Not yet answered

Marked out of 1

Flag question

An equipotential surface is adjacent points with:

Select one:

- a. **same electric potential**
- b. **zero electric potential**
- c. **opposite electric potential**
- d. **varying electric potential**

Question 13

Not yet answered

Marked out of 1

Flag question

Which of the following is the correct relationship between PEAK value and R.M.S. value of an alternating signal.

Select one:

- a. **peak = r.m.s. x v2**
- b. **r.m.s. = peak x v2**
- c. **peak = r.m.s./v2**
- d. **peak = v2/r.m.s.**

Question 14

Not yet answered

Marked out of 1

Flag question

Which of following circuit element stores energy in electromagnetic field?

Select one:

- a. Inductor
- b. Condenser
- c. Resistor
- d. Capacitor

Question 8 Not yet answered

Marked out of 1 Flag question

The process by which an emf and hence current is generated or induced in a conductor when there is a change in the magnetic flux linking the conductor is called

Select one:

- a. electromagnetic induction
- b. mutual induction
- c. Faraday's law
- d. Electromagnetic interference

Question 9 Not yet answered

Marked out of 1 Flag question

The electric field associated with a uniformly charged hollow metallic

uestion 2 Not yet answered

arked out of 1 Remove flag

Calculate the flux through a coil loop of area $0.45m^2$ when its plane is inclined at an angle of 60^0 to a magnetic field of1.15T

Select one:

- a. $0.17wb/m^2$
- b. $0.45wb/m^2$
- c. $4.06wb/m^2$
- d. $5.73wb/m^2$

Question 3 Not yet answered

Marked out of 1 Flag question

A wire of length 2.5m carrying a current of 1.3A is inclined at an angle O to the direction of the magnetic field of value 0.4 T. Calculate the value of O if the force

Question 13 Not yet answered

Marked out of 1 Flag question

Which of the following is the correct relationship between PEAK value and R.M.S. value of an alternating signal.

Select one:

- a. **peak = r.m.s. x v2**
- b. **r.m.s. = peak x v2**
- c. **peak = r.m.s./v2**
- d. **peak = v2/r.m.s.**

Question 14 Not yet answered

Marked out of 1 Flag question

When silicon is doped with boron, it becomes

Select one:

- a. **neutral conductor**
- b. **N-type semiconductor**
- c. **P-type semiconductor**
- d. **neutral atom**

Question 15 Not yet answered

Marked out of 1 Flag question

c. **P-type semiconductor**

d. **neutral atom**

Question 15 Not yet answered

Marked out of 1 **Flag question**

Calculate the total resistance between the points A and B.
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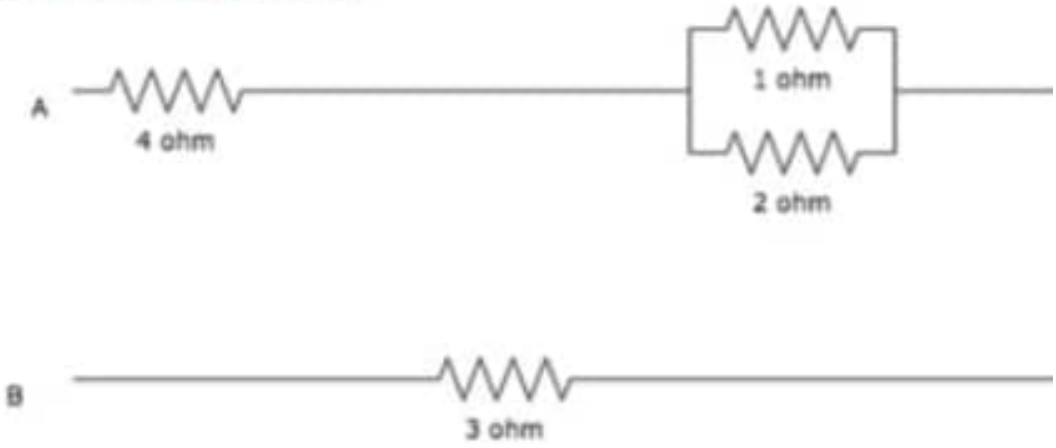


Select one:

a. 7 ohm

b. 0 ohm

c. 7.67 ohm

d. 0.48 ohm

Finish attempt ...

← Announcements

Jump to...

The force per unit charge is known as?

Select one:

- a. **Electric current**
- b. **Electric flux**
- c. **Electric field intensity**
- d. **Electric potential**

Question 6

Not yet answered

Marked out of 1

Flag question

In a parallel-plate capacitor, the distance d between the plates is 3cm, the area of each plate is 15cm^2, and the voltage across them is 5V. Calculate the capacitance. Take permittivity of free space to be $\varepsilon_0 = 8.854 \times 10^{-12} C/Nm^2$ $\varepsilon_0 = 8.854 \times 10^{-12} C/Nm^2$.

Select one:

- a. $3.33 \times 10^{-13} F 3.33 \times 10^{-13} F$
- b. $9.31 \times 10^{-11} F 9.31 \times 10^{-11} F$
- c. $4.43 \times 10^{-13} F 4.43 \times 10^{-13} F$
- d. $1.29 \times 10^{-12} 1.29 \times 10^{-12}$ F

Question 7

Not yet answered

Question 6 Not yet answered

Marked out of 1 Flag question

In a parallel-plate capacitor, the distance d between the plates is 3cm, the area of each plate is 15cm^2, and the voltage across them is 5V. Calculate the capacitance. Take permittivity of free space to be $\varepsilon_0 = 8.854 \times 10^{-12} C/Nm^2$ $\varepsilon_0 = 8.854 \times 10^{-12} C/Nm^2$.

Select one:

- a. $3.33 \times 10^{-13} F 3.33 \times 10^{-13} F$
- b. $9.31 \times 10^{-11} F 9.31 \times 10^{-11} F$
- c. $4.43 \times 10^{-13} F 4.43 \times 10^{-13} F$
- d. $1.29 \times 10^{-12} 1.29 \times 10^{-12}$ F

Question 7 Not yet answered

Marked out of 1 Flag question

Which of following circuit element stores energy in electromagnetic field?

Select one:

- a. Inductor
- b. Condenser

Question 7 Not yet answered

Marked out of 1 Flag question

Which of following circuit element stores energy in electromagnetic field?

Select one:

- a. Inductor
- b. Condenser
- c. Resistor
- d. Capacitor

Question 8 Not yet answered

Marked out of 1 Flag question

The process by which an emf and hence current is generated or induced in a conductor when there is a change in the magnetic flux linking the conductor is called

Select one:

- a. electromagnetic induction
- b. mutual induction
- c. Faraday's law
- d. Electromagnetic interference

b. mutual induction

c. Faraday's law

d. Electromagnetic interference

Question 9 Not yet answered

Marked out of 1 Flag question

The electric field associated with a uniformly charged hollow metallic sphere is the greatest at:

Select one:

a. **the center of the sphere.**

b. **the sphere's outer surface.**

c. **the sphere's inner surface.**

d. **infinity.**

Question 10 Not yet answered

Marked out of 1 Flag question

The energy band in which free electrons exist is

Select one:

a. **first band**

b. **second band**

c. the sphere's inner surface.

d. **infinity.**

Question 10

Not yet answered

Marked out of 1

Flag question

The energy band in which free electrons exist is

Select one:

a. **first band**

b. **second band**

c. **conduction band**

d. **valence band**

Question 11

Not yet answered

Marked out of 1

Flag question

The diagram below shows a positive point charge Q.

Which of the following describes the magnitude and direction of the electric field at points r and s respectively?

Select one:

○ d. **valence band**

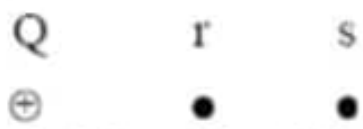
Question 11

Not yet answered

Marked out of 1

Flag question

The diagram below shows a positive point charge Q.



Which of the following describes the magnitude and direction of the electric field at points r and s respectively?

Select one:

○ a. **Same and Away from Q**

○ b. **Same and towards Q**

○ c. **different and Away from Q**

○ d. **different and towards Q**

Question 12

Not yet answered

Marked out of 1

Flag question

An equipotential surface is adjacent points with:

Select one:

○ a. **same electric potential**

Hall probe is made up of

Select one:

- a. **metals**
- b. **non metals**
- c. **semiconductor**
- d. **radioactive material**

Question 5 Not yet answered

Marked out of 1 Flag question

The force per unit charge is known as?

Select one:

- a. **Electric current**
- b. **Electric flux**
- c. **Electric field intensity**
- d. **Electric potential**

Question 6 Not yet answered

Marked out of 1 Flag question

In a parallel-plate capacitor, the distance d between the plates is 3cm, the area of each plate is $15cm^2$, and the voltage across them is 5V. Calculate

Select one:

- a. **0.08A**
- b. **0.39A**
- c. **0.72A**

Question 2 Not yet answered

Marked out of 1 Flag question

The area under the current-time graph is equivalent to

Select one:

- a. Dielectric
- b. Potential difference
- c. Magnitude of charge
- d. Capacitance

Question 3 Not yet answered

Marked out of 1 Flag question

The phenomenon of producing an induced emf with the aid of a magnetic field is

Select one:

c. Magnitude of charge

d. Capacitance

Question 3 Not yet answered

Marked out of 1 Flag question

The phenomenon of producing an induced emf with the aid of a magnetic field is

Select one:

a. **called electromotive production.**

b. **almost never observed.**

c. **a scientific curiosity with no practical application.**

d. **called electromagnetic induction.**

Question 4 Not yet answered

Marked out of 1 Flag question

Hall probe is made up of

Select one:

a. **metals**

b. **non-metals**

a. **i & ii**

b. **ii & iii**

c. **iii & IV**

d. **i, ii, iii & iv**

Question 5 Not yet answered

Marked out of 1 **Flag question**

The equation of a sinusoidal waveform is given by I = 15sin ùt. Calculate the r.m.s value of current at t = 5s.

Select one:

a. 21.7A

b. 15.8A

c. 10.6A

d. 7.5A

Question 6 Not yet answered

Marked out of 1 **Flag question**

Which of the follow is correct about the application of Gauss law in the determination of electric field?

b. 9.15nC

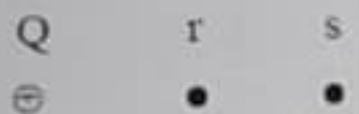
c. 8.85nC

d. 2.05nC

Question 4

Not yet answered Marked out of 1 Flag question

The diagram below shows a positive point charge Q.



Which of the following describes the magnitude and direction of the electric field at points r and s respectively?

Select one:

a. Same and Away from Q

b. Same and towards Q

c. different and Away from Q

d. different and towards Q

Question 5

Not yet answered Marked out of 1 Flag question

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d. 0.06A

Question 10

Not yet answered Marked out of 1 Flag question

An electrostatic paint has a 200mm diameter metal sphere at a potential of 25KV that repels paint droplets onto a grounded object. What charge is on the sphere?

Select one:

a. $2.78\mu C 2.78\mu C$

b. $27.8\mu C 27.8\mu C$

c. $0.278\mu C 0.278\mu C$

d. $0.0278\mu C 0.0278\mu C$

Question 11

Flag question

Which of the following gives the magnetic force (F) on a charge (q) moving in a field (B) with a velocity (V)

Select one:

a. F = B + qV

b. F = BqV

c. F = BqV sin Θ

d. F = BqV/sin Θ

Type here to search

Select one:

- a. 0.72A
- b. 1.15A
- c. 2.08A
- d. 3.75A

Question 15 Not yet answered Marked out of 1 Flag question

Find the potential difference require to give a helium nucleus ($q = 3.2 \times 10^{-19} c) q = 3.2 \times 10^{-19} c$) whose kinetic energy is $4.8 \times 10^3 eV$ $4.8 \times 10^3 eV$ where $1eV = 1.6 \times 10^{-19} J 1eV = 1.6 \times 10^{-19} J$.

Select one:

- a. $4.8 \times 10^3\ V 4.8 \times 10^3\ V$
- b. $1.2 \times 10^3\ V 1.2 \times 10^3\ V$
- c. $3.6 \times 10^3\ V 3.6 \times 10^3\ V$
- d. $2.4 \times 10^3\ V 2.4 \times 10^3\ V$

Finish attempt ...

d. 3.75A

Question 15 Not yet answered Marked out of 1 Flag question

Find the potential difference require to give a helium nucleus ($q = 3.2 \times 10^{-19} c) q = 3.2 \times 10^{-19} c$) whose kinetic energy is $4.8 \times 10^3 eV$ $4.8 \times 10^3 eV$ where $1eV = 1.6 \times 10^{-19} J 1eV = 1.6 \times 10^{-19} J$.

Select one:

- a. $4.8 \times 10^3\ V 4.8 \times 10^3\ V$
- b. $1.2 \times 10^3\ V 1.2 \times 10^3\ V$
- c. $3.6 \times 10^3\ V 3.6 \times 10^3\ V$
- d. $2.4 \times 10^3\ V 2.4 \times 10^3\ V$

Finish attempt ...

Announcements

Jump to...

Question 1 Not yet answered

Marked out of 1 Flag question

The electric field intensity of $100\ N/C$ $100\ N/C$ is applied on circular surface area at an angle of $60^0 60^0$ to the surface. What is the flux intensity in $Nm^2/CNm^2/C$ through the circular surface of radius 7m?

Select one:

- a. 3850
- b. $\frac{77007700}{\sqrt{3}\ \sqrt{3}}$
- c. $7700\sqrt{3}7700\sqrt{3}$
- d. 7700

Question 2 Not yet answered

Marked out of 1 Flag question

Which of the following is correct about biasing of a p-n junction?

d. $kg\,s\,m^{-1}\,C$

uestion 13

Not yet answered Marked out of 1 Flag question

Which of the following is correct about biasing of a p-n junction?

Select one:

- a. it is reversed biased when p is connected to the positive terminal of a battery
- b. it is reversed biased when p is connected to the negative terminal of a battery
- c. it is forward biased when n is connected to the positive terminal of a battery
- d. it is forward biased when p is connected to the negative terminal of a battery

Question 14

Not yet answered Marked out of 1 Flag question

A straight conductor of length 25cm moves with a velocity of 30m/s in a magnetic field of 0.4T. If the resistance of the conductor is 0.8?, calculate the current flowing in the conductor.

Select one:

- a. 0.72A
- b. 1.15A
- c. 2.08A

Question 11 Not yet answered

Marked out of 1 Flag question

Which of the following statements is NOT true of electric fields?

Select one:

- a. The magnitude of the field is dependent on the test charge placed there
- b. It is a vector field that can be associated each point in space
- c. It is the force per unit charge exerted on a test positive charge at rest at that point
- d. It can be generated by electric charges or by time-varying magnetic fields

Question 12 Not yet answered

Marked out of 1 Flag question

Resistivity of a wire depends on

Select one:

- a. length
- b. material
- c. cross section area
- d. All of the options

a. electromagnetic induction

b. mutual induction

c. Faraday's law

d. Electromagnetic interference

Question 13

Not yet answered Marked out of 1 Flag question

Which of the following is/are correct? *I.* reverse biasing a diode causes the holes in the N-type material to be withdrawn from the junction; *II.* reverse biasing a diode causes the holes in the P-type material to be withdrawn from the junction; *III.* forward biasing a diode causes the electron in the N-type material to travel towards the junction; *IV.* forward biasing a diode causes the holes in the P-type material to be withdrawn from the junction.

Select one:

a. *II, III*

b. *III, IV*

c. *I, II*

d. *II, III, IV*

Question 14

Not yet answered Marked out of 1 Flag question

Which of the following is true about p-n junction diode? i. Forward bias current rises linearly. Reverse bias current is absolutely zero. iii. Width of depletion region is unchanged when forward biased.

the electric field

○ d. The acceleration is infinitely large

Question 15 Not yet answered

Marked out of 1 **Flag question**

The electric field intensity of $100\ N/C$ $100\ N/C$ is applied on circular surface area at an angle of $60^0 60^0$ to the surface. What is the flux intensity in $Nm^2/C Nm^2/C$ through the circular surface of radius 7m?

Select one:

○ a. 3850

○ b. $\frac{77007700}{\sqrt{3}\ \sqrt{3}}$

○ c. $7700\sqrt{3}7700\sqrt{3}$

○ d. 7700

Finish attempt ...

... Announcements

Jump to...

Quiz navigation

Question 6

Not yet answered

Marked out of 1

Flag question

Which of the following is true for a.c. circuit?

Select one:

- a. **All elements in the circuit dissipate power.**
- b. **Reactive elements only are associated with apparent power.**
- c. **power is dependent on impedance.** (selected)
- d. **power factor of purely resistive element is zero.**

Question 7

Not yet answered

Marked out of 1

Flag question

An electron is travelling at right angles to a uniform magnetic field

Why is electrical energy usually transmitted at high voltage?

Select one:

- a. the resistance of the transmission cables is as small as possible
- b. the transmission cables are safer to handle
- c. as little energy as possible is wasted in the transmission cables
- d. the transmission system does not require transformers e. the current in the transmission cables is as large as possible

Question 13

Not yet answered

Marked out of 1

Flag question

Determine the electric flux emerging from a circular surface radius $0.025m^2$ if the electric field strength is 100V/m and the field lines makes an angle of 30° with the surface.

Select one:

- a. **$0.098Nm^2/C$**
- b. **$0.170Nm^2/C$**
- c. **$0.090Nm^2/C$**
- d. **$0.196Nm^2/C$**

Question 14

Not yet answered

Marked out of 1

Flag question

Select one:

- a. 3 oms and 6 ohms
- b. 3 ohms and 9 ohms
- c. 1.5 ohms and 3 ohms
- d. 1.5 ohms and 0.5 ohms

Question 8

Not yet answered Marked out of 1 Flag question

What are you likely to observe when a negatively charge rod is brought near the knob of a charged electroscope, with a positive residual charge?

Select one:

- a. **The leaf will collapse immediately**
- b. **The leaf diverges permanently**
- c. **The leaf remains unchanged**
- d. **The leaf collapses and then diverges**

Question 9

Not yet answered Marked out of 1 Flag question

Why is electrical energy usually transmitted at high voltage?

Select one:

- a. **the resistance of the transmission cables is as small as possible**
- b. **the**

d. varying electric potential

Question 5 Not yet answered

Marked out of 1 Flag question

A positive charge moving with a constant velocity v enters a region of a uniform magnetic field pointing to the top of the page. What is the direction of the magnetic force on the charge?

Select one:

- a. There is no magnetic force on the charge.
- b. Right.
- c. To the bottom of the page.
- d. To the top of the page.

Question 6 Not yet answered

Marked out of 1 Flag question

Which, among the following quantities, is not affected by the magnetic field?

Select one:

- a. Moving charge
- b. Change in magnet

Marked out of 1

Flag question

Two point charges are 6 cm apart. They are moved to a new separation of 3 cm. By what factor does the resulting mutual force between them change?

Select one:

- a. 1/2
- b. 2
- c. 4
- d. ¼

Question 4

Not yet answered

Marked out of 1

Flag question

An equipotential surface is adjacent points with:

Select one:

- a. same electric potential
- b. zero electric potential
- c. opposite electric potential
- d. varying electric potential

Question 5

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Marked out of 1

Flag question

Find the electric field at a point 0.2 m from a charge of 20 mC, what force will the field exert on a charge of 10 mC, placed at that point?

Select one:

a. 22.00N

b. 47.00N

c. 45.00N

d. 55.00N

Question 15

Not yet answered

Marked out of 1

Flag question

What change in potential difference does a $4\mu c 4\mu c$ charge experiences when it is moves between two

lect one:

increases when it is doped with pentavalent impurity.

increases when it is doped with trivalent impurity.

increases when it is doped with pentavalent or trivalent purity.

None

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Question 14

Not yet answered

Marked out of 1

Flag question

What is the magnitude of an electric field in which the force on an electron is equal in magnitude to the weight of an electron? (mass of an electron = 9.11×10^{-31} kg, charge on an electron = 1.6×10^{-19} C)

Select one:

- a. **2.00×10^{-11} N/C**
- b. **4.65×10^{-11} N/C**
- c. **5.00×10^{-11} N/C**
- d. **5.58×10^{-11} N/C**

Question 15

Not yet answered

Marked out of 1

Flag question

The potential difference required for 0.2 A in a conductor of resistance 20W is?

Select one:

Question 12 Not yet answered

Marked out of 1 Flag question

Two long parallel wire are 40mm apart. If current of 20A and 30A are applied to the wire in the same direction. Find the force of attraction of wire per unit length.

A. 0.003N/m

Select one:

- a. **0.3N/m**
- b. **3N/m**
- c. **30N/m**

Question 13 Not yet answered

Marked out of 1 Flag question

Determine the electric flux emerging from a circular surface radius $0.025m^2$ if the electric field strength is 100V/m and the field lines makes an angle of 30° with the surface.

Select one:

- a. **$0.098Nm^2/C$**
- b. **$0.170Nm^2/C$**
- c. **$0.090Nm^2/C$**
- d. **$0.196Nm^2/C$**

c. **opposite electric potential**

d. **varying electric potential**

Question 7

Not yet answered

Marked out of 1

Flag question

If a $50\mu F50\mu F$ capacitor is connected across an alternating electromotive force describe by $v = 30 \sin(2000\pi t)$ $v = 30 \sin(2000\pi t)$ volts. What is the peak voltage?

Select one:

a. 1500 V

b. 60000 V

c. **20002000** V

d. **3030** V

Question 8

Not yet answered

Marked out of 1

Flag question

c. **opposite electric potential**

d. **varying electric potential**

Question 7

Not yet answered

Marked out of 1

Flag question

If a $50\mu F 50\mu F$ capacitor is connected across an alternating electromotive force describe by $v = 30 \sin(2000\pi t)$ $v = 30 \sin(2000\pi t)$ volts. What is the peak voltage?

Select one:

a. 1500 V

b. 60000 V

c. **20002000** V

d. **3030** V

Question 8

Not yet answered

Marked out of 1

Flag question

c. 1.2×10^{-4} °C Negative

d. 1.2×10^{-4} °C Positive

Question 13 Not yet answered Marked out of 1 Flag question

If the resistance of a wire is r ?, and the wire is stretched to double its length, then its resistance is?

Select one:

a. r/2 ?

b. 4 r ?

c. 2 r ?

d. r/4 ?

Type here to search

c. -1.08 MN/C $\hat{x}$

d. -10.8MN/C $\hat{x}$

Question 10

Not yet answered

Marked out of 1

Flag question

Which of the following is true about p-n junction diode? i. Forward bias current rises linearly. Reverse bias current is absolutely zero. Iii. Width of depletion region is unchanged when forward biased.

Select one:

a. i, iii.

b. ii, iii.

c. 1, ii

d. none

Question 11

Not yet answered

Marked out of 1

Flag question

Determine the surface charge density on

connected in parallel across a dc source, greater current flows through the

Select one:

- a. higher resistance
- b. lower resistance
- c. same current flows through each
- d. same charge and same voltage

Question 11

Not yet answered

Marked out of 1

Flag question

The dimensions of plates of a parallel plate capacitor are 8 cm by 8 cm and they are separated by a distance of 2 mm. Calculate the capacitance of the capacitor if air is between the plates

Select one:

- a. $3.54 \times 10^{-10} F 3.54 \times 10^{-10} F$
- b. $2.77 \times 10^{-12} F 2.77 \times 10^{-12} F$
- c. $2.83 \times 10^{-11} F 2.83 \times 10^{-11} F$
- d. $3.54 \times 10^{-10} F 3.54 \times 10^{-10} F$

Question 12

stion 14 Not yet answered Marked out of 1 Flag question

the electric field intensity at a distance of of 20cm from a charge of 2nC.

ct one.

a. 1,800 N/C

b. 0.045 N/C

k N/C

a. higher resistance

b. lower resistance

c. same current flows through each

d. same charge and same voltage

Question 11

Not yet answered

Marked out of 1

Flag question

The dimensions of plates of a parallel plate capacitor are 8 cm by 8 cm and they are separated by a distance of 2 mm. Calculate the capacitance of the capacitor if air is between the plates

Select one:

a. $3.54 \times 10^{-10} F 3.54 \times 10^{-10} F$

b. $2.77 \times 10^{-12} F 2.77 \times 10^{-12} F$

c. $2.83 \times 10^{-11} F 2.83 \times 10^{-11} F$

d. $3.54 \times 10^{-10} F 3.54 \times 10^{-10} F$

Question 12

Not yet answered

Marked out of 1

Flag question

Two long parallel wire are 40mm apart.

Flag question

A die… slowly inserted between the plates of a parallel plate capacitor, while the potential di?erence between the plates is held constant by a battery. As it is being inserted:

Select one:

- a. the capacitance, the potential di?erence between the plates, and the charge on the positive plate all increase
- b. the capacitance and the charge on the positive plate increase but the potential di?erence between the plates remains the same
- c. the capacitance, the potential di?erence between the plates, and the charge on the positive plate all decrease
- d. the potential di?erence between the plates increases, the charge on the positive plate decreases, and the capacitance remains the same

Question 8

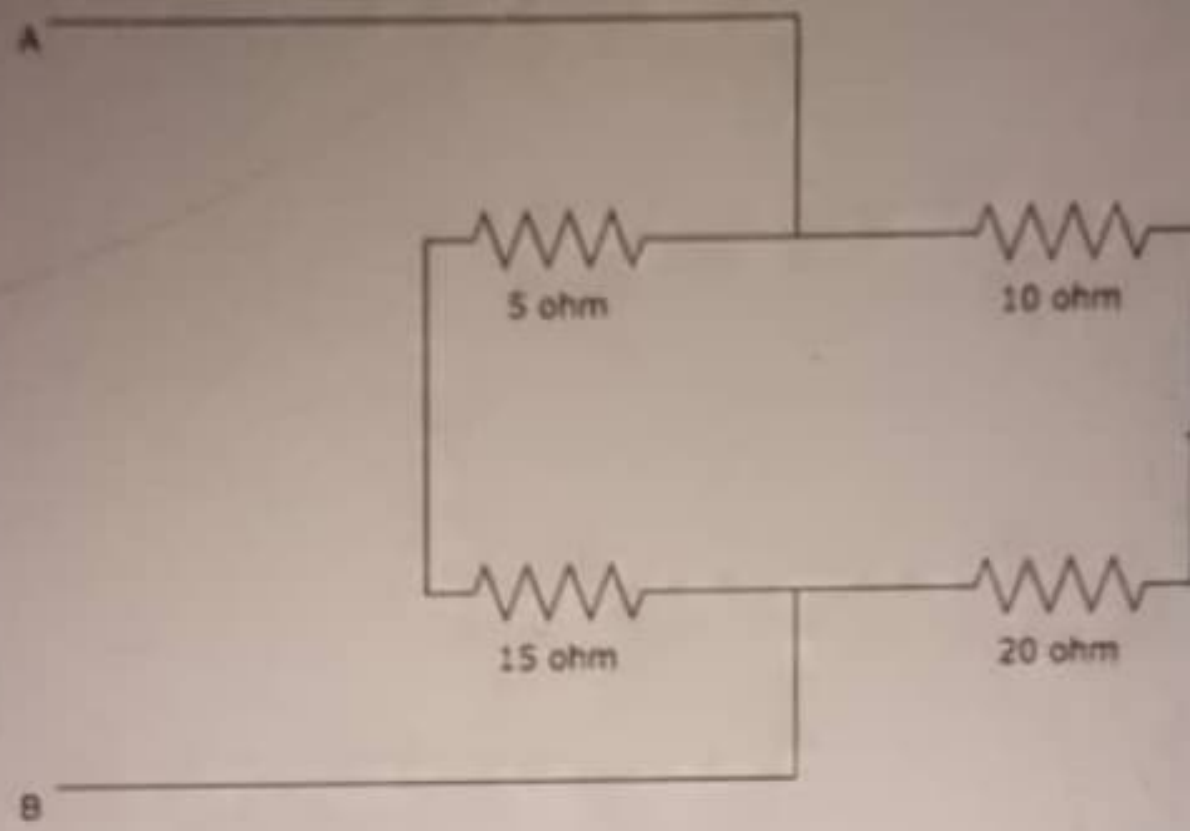
Not yet answered

Marked out of a… Flag question

Question 1

Flag question

Calculate the equivalent resistance between A and B.
https://www.sanfoundry.com/wp-content/uploads/2018/02/basic-electrical-engineeri



Select one:

- a. 60 ohm
- b. 15 ohm
- c. 12 ohm
- d. 48 ohm

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Flag question

An ideal transformer has 550 turns on the primary and 30 turns on the secondary. What is the maximum output pd if the maximum input voltage is 3300V? And what maximum primary current is required if the maximum current of 11A is drawn from the secondary? Assuming the transformer is 100% efficient

Select one:

a. $V_s = 180V$ and $I_p = 0.6A$
$V_s = 180V$ and $I_p = 0.6A$

b. $V_s = 108V$ and $I_p = 0.06A$
$V_s = 108V$ and $I_p = 0.06A$

c. $V_s = 180V$ and $I_p = 1.20A$
$V_s = 180V$ and $I_p = 1.20A$

d. $V_s = 180V$ and $I_p = 0.06A$
$V_s = 180V$ and $I_p = 0.06A$

> CLICK HERE TO START PHS122 TEST - GROUP E (MEDICAL LAB SCI, MET &MAT ENGR, NURSING, PET & GAS ENGR)

Question 1

Not yet answered

Marked out of 1

Flag question

Determine the most possible relationship between q1 and q2 in figure B

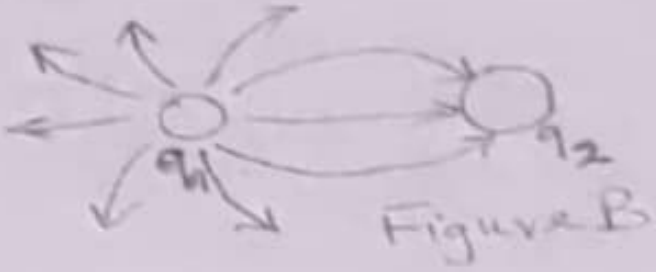

Figure B

Select one:

- a. **q1 = q2**
- b. **q1 = 3q2**
- c. **q1 <q2**
- d. **q1 > q2**

Question 2

Not yet answered

Marked out of 1

Flag question

Select one:

- a. 20%
- b. 80%
- c. 12.5%
- d. 60%

Question 10 Not yet answered Marked out of 1

The equation of alternating current is $i = 42.4\sin 628t$. Then the value of current is

Select one:

- a. 2A
- b. 38 A.
- c. 22 A.
- d. 42.42 A.

Question 11

The flux linking a coil changes from 5.0×10^{-4} wb to 2.2×10^{-4} wb in 0.025 seconds. Calculate the average e.m.f. induced in the coil if it

Question 11

Not yet answered Marked out of 1

The flux linking a coil changes from 5.0×10^{-4} wb to 2.2×10^{-3} wb in 0.025 seconds. Calculate the average e.m.f. induced in the coil if it has 500turns

Select one:

- a. -5.6V
- b. -4.3V
- c. -3.8V
- d. -2.7V

Question 12

Not yet answered Marked out of 1 Flag question

Which of the following is true? I. Doping of semiconductors improves its conductivity. ii.doping a semiconductor renders it totally immune to ambient temperature. Doping of semiconductor alters the composition of carriers in it

Select one:

- a. I, II, III
- b. I, II
- c. I, III
- d. II, III

Select one:

- a. 0.5s
- b. 0.72s
- c. 0.27s
- d. 1.39s

Question 14 Not yet answered

Marked out of 1 Flag question

When an alternating signal flows through a capacitor,

Select one:

- a. **Voltage leads current by 90^0**
- b. **current leads voltage by 90^0**
- c. **current lags voltage by 90^0**
- d. **current and voltage are in phase**

Question 15 Not yet answered

Marked out of 1 Flag question

The S.I unit of electric field intensity is