



Loving You
Zinoleesky



Tell me what them haters gon'
do, oh

No idea

Dem no get password to the
Wi-Fi

They just want to know our
lifestyle

For your love, I no get control

(You be my man, and I will be
your woman every day)

(You, you be my man, and I will
be your woman every day)

Ah, yeah



0:36

2:05





Call of Duty
Zinoleesky



(Óyà, óyà, drink)

**(Drink garri, whether your
brain go calm down)**

(I dey smoke igbo?)

Hmm, hmm, hmm

(Niphkeys) uh

**I be person pikin, I get feelings
too**

My mind is split in two

I love you, but I love Simbi too

**Girl, you can just tell me if you
want Jimmy Choo**

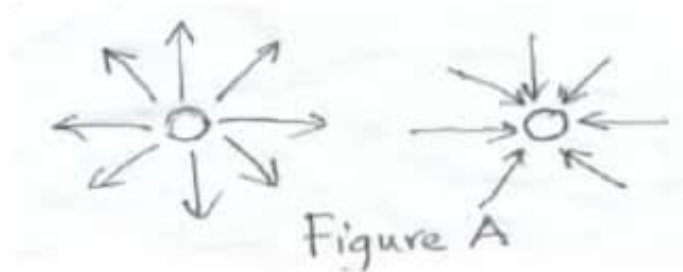


0:08

2:24



per unit length.



Select one:

- ☐ a. Yes
- ☒ b. No
- ☐ c. Cannot be determined
- ☐ d. No basis for comparison

Question 15

Not yet answered

Marked out of 1

Flag question

A small object carrying a charge of $5 \times 10^{-9} \text{ C}$ experiences a downward force of $20 \times 10^{-9} \text{ N}$ when placed at a certain point in an electric field. What is the electric field at the point?

Select one:

- ☐ a. 2.32N/C
- ☐ b. 4.25N/C
- ☒ c. 4.00N/C
- ☐ d. 5.59N/C

Finish attempt ...

[← Announcements](#)

Jump to...



**Derived unit Tesla is related to**

Select one:

- ☐ a. **A**
- ☐ b. **kg**
- ☐ c. **s**
- ☒ d. **all of above**

Question 12

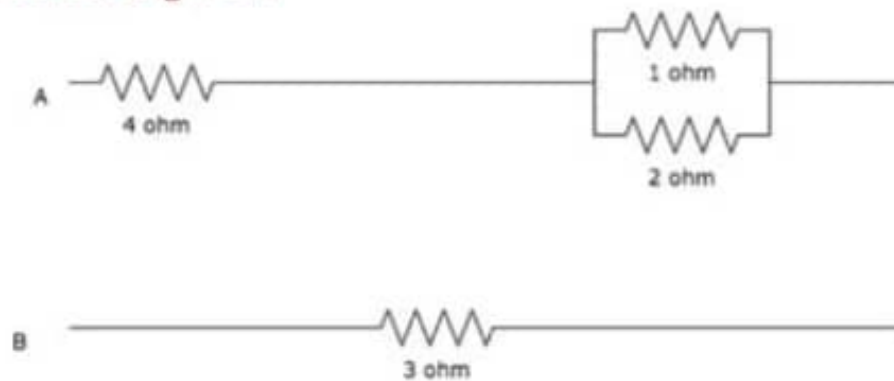
Not yet answered

Marked out of 1

Flag question

Calculate the total resistance between the points A and B.

<https://www.sanfoundry.com/wp-content/uploads/2018/02/basic-electrical-engineeri>



Select one:

- ☐ a. 7 ohm
- ☐ b. 0 ohm
- ☒ c. 7.67 ohm
- ☐ d. 0.48 ohm



reactance of the

Select one:

- ☐ a. 320 Ohms
- ☐ b. 3200 Ohms
- ☐ c. 3.2 ohms
- ☐ d. 0.32 Ohms

Question 11

Not yet answered

Marked out of 1

Flag question

Which of the following is not true about doping of semiconductor?

Select one:

- ☐ a. doping with group III element leads to p-type semiconductor.
- ☐ b. doping with group V element leads to n-type semiconductor.
- ☐ c. doping with group III elements leads to excess holes in valency band.
- ☐ d. doping with group V elements leads to excess holes in the conduction band.

Question 12

Not yet answered

Marked out of 1

Flag question

When a battery, a resistor, a switch, and an inductor form a circuit, and the switch is closed, the inductor acts to oppose the change in the current. How is the time constant of the inductor affected by doubling the resistance in the circuit?

Select one:

- ☐ a. The time constant would increase to four times its original value.
- ☐ b. The time constant would increase to twice its original value.
- ☐ c. The time constant would remain the same.
- ☐ d. The time constant would decrease to one-half its original value.

Question 13

Not yet answered

Marked out of 1

Flag question

The power dissipated by a $72\ \Omega$ resistor connected to sinusoidal a.c. source is 24W, determine the peak-to-peak voltage across the resistor.

Select one:

- ☐ a. 117.5v
- ☐ b. 58.8v
- ☐ c. 41.5v
- ☐ d. 235v

Question 14

Not yet answered

Marked out of 1

Flag question

Select one:

- ☒ a. $2.0 \times 10^6 \text{ N/C}$ and $4.5 \times 10^5 \text{ N/C}$
- ☐ b. $2.4 \times 10^6 \text{ N/C}$ and $2.5 \times 10^5 \text{ N/C}$
- ☐ c. $3.5 \times 10^6 \text{ N/C}$ and $2.5 \times 10^5 \text{ N/C}$
- ☐ d. $5.4 \times 10^6 \text{ N/C}$ and $4.5 \times 10^5 \text{ N/C}$

Question 14

Not yet answered

Marked out of 1

 **Flag question**

Ohm's law can be used only to a
_____ circuit or component

Select one:

- ☒ a. Unilateral
- ☐ b. Exponential
- ☐ c. Trivalent
- ☐ d. Linear

Question 15

Not yet answered

Marked out of 1

 **Flag question**

Which of the following is/are correct about insulator and semiconductor?

- (i) Insulators have narrow forbidden bands;
(ii) Both insulators & semiconductors have narrow forbidden bands; (iii) conductors have wide forbidden bands; (iv) insulators



Question 13

Not yet answered

Marked out of 1

Flag question

Which of the following is true about intrinsic semiconductor? i. Each semiconductor atom undergo paired sharing of electrons with four neighbouring atoms. ii. Conduction is due equally to holes and electrons. iii. Group V atoms in the semiconductor share four electrons with four neighbouring atoms with an extra electron. iv. Band structure is between that of metals and insulators.

Select one:

☐ a. i, ii, iii.

☒ b. i, ii, iv.

☐ c. i, ii.

D i, iii.

Question 14

Not yet answered

Marked out of 1

Flag question

The weight of a charge-bearing oil droplet with charge $10^{-10} e^-$ in an electric

- ☐ b. Energy - kW
- ☒ c. Potential difference - J/C
- ☐ d. Current - A/s

Question 14

Not yet answered

Marked out of 1

 Flag question

An alternating voltage whose peak value is 80 volts is connected across a 60 ohms. What is the value of *rmsrms* current?

Select one:

- ☐ a. 1.33 A
- ☐ b. 0.94 A
- ☐ c. 1.88A
- ☐ d. 0.67A

Question 15

Not yet answered

Marked out of 1

 Flag question

..... is used for measuring potential difference.

Select one:

- ☐ a. Potentiometer
- ☐ b. Ammeter
- ☒ c. Voltmeter

☐ d. 235v

Question 12

Not yet answered

Marked out of 1

 Flag question

A potential difference of 2v is connected to a uniform resistance of length 2.0m and cross-sectional area $8 \times 10^{-9} \text{m}^2$. A current 0.1A then flows in the wire. Find the conductivity of the material.

Select one:

- ☐ a. $8.12 \times 10^{-8} \text{m}^{-1} \Omega^{-1}$
- ☐ b. $9.0 \times 10^{-7} \text{m}^{-1} \Omega^{-1}$
- ☐ c. $1.25 \times 10^{-7} \text{m}^{-1} \Omega^{-1}$
- ☐ d. $1.25 \times 10^{-8} \text{m}^{-1} \Omega^{-1}$

Question 13

Not yet answered

Marked out of 1

 Flag question

Which one of the following quantities is correctly matched to its unit?

Select one:

- ☐ a. Power – kW·h

Question 13

Not yet answered

Marked out of 1

Flag question

The battery connection required to forward bias PN junction are

Select one:

- ☒ a. +ve terminal to P and -ve terminal to N
- ☐ b. -ve terminal to P and +ve terminal to N
- ☐ c. -ve terminal to P and -ve terminal to N
- ☐ d. none of the above

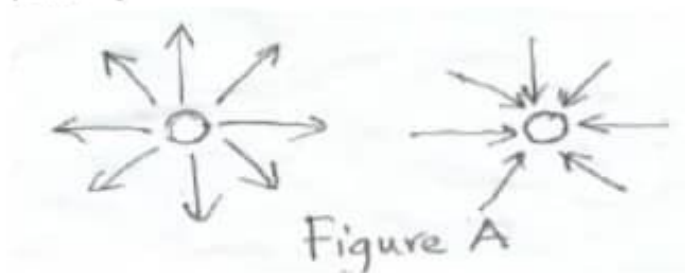
Question 14

Not yet answered

Marked out of 1

Flag question

Are the two charges, q_1 and q_2 , in figure A of equal magnitude and polarity?



Select one:

- ☐ a. Yes
- ☒ b. No
- ☐ c. Cannot be determined
- ☐ d. No basis for comparison



Question 9 Not yet answered

Marked out of 1

Flag question

Calculate the force on a wire of length 5cm carrying a current of 30A if it is placed perpendicular to a magnetic field of intensity 0.8T.

Select one:

- ☐ a. 10.5N
- ☐ b. 5.4N
- ☐ c. 3.8N
- ☒ d. 1.2N

Question 10

Not yet answered

Marked out of 1

Flag question

The constant k_e , which appears in Coulomb's law formula, is equivalent dimensionally to which of the following?

Select one:

- ☐ a. $\text{N}\cdot\text{m}/\text{C}$
- ☐ b. N/C
- ☒ c. $\text{N}\cdot\text{m}^2/\text{C}^2$
- ☐ d. N/C^2

Question 11

Not yet answered

Marked out of 1

Flag question

Derived unit Tesla is related to



Question 7

Not yet answered

Marked out of 1

 Flag question

A parallel plate air capacitor is made of 0.2 m square tin plates and 1 cm apart. It is connected to a 50 V battery. What is the charge on each plate?

Select one:

- ☒ a. 1.77 nC
- ☐ b. 1.77 mC
- ☐ c. 1.77 C
- ☐ d. 1.77 pC

Question 8

Not yet answered

Marked out of 1

 Flag question

Magnetic lines of force have all but one of the following characteristics. The one that they DO NOT have is

Select one:

- ☒ a. they go from the South-pole to the North-pole of the magnet
- ☐ b. they are most concentrated at the poles of a magnet
- ☐ c. they pass through copper
- ☐ d. they never cross one another



Question 9

Not yet answered



Question 5

Not yet answered

Marked out of 1

 **Flag question**

KCL is applied at

Select one:

- ☐ a. Loop
- ☒ b. Node
- ☐ c. Both loop and node
- ☐ d. Neither loop nor node

Question 6

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 7

Not yet answered

Marked out of 1

 **Flag question**

A parallel plate air capacitor is made of 0.2 m square tin plates and 1 cm



Question 3

Not yet answered

Marked out of 1

 **Remove flag**

QUESTION BLANK

Select one:

- ☐ a. CHOICE BLANK
- ☒ b. CHOICE BLANK
- ☐ c. CHOICE BLANK
- ☐ d. CHOICE BLANK

Question 4

Not yet answered

Marked out of 1

 **Flag question**

In intrinsic semiconductors at room temperature, the number of electrons and holes are

Select one:

- ☐ a. Unequal
- ☒ b. Equal
- ☐ c. Infinite
- ☐ d. Zero

Question 5

Not yet answered

Marked out of 1

 **Flag question**

Screenshot has been saved to/Pictures/
Screenshot

KCL is applied at

Select one:

- ☐ a. Loop



Question 1

Not yet answered

Marked out of 1

 **Flag question**

Electric motor has input power consumption of 50 watts. The motor was activated for 60 seconds and produced work of 2970 joules. Find the efficiency of the motor.

Select one:

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

Question 2

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 3

Not yet answered

Marked out of 1

 **Remove flag**

QUESTION BLANK

Select one:



Which of the following is true about electric dipole:

Select one:

- ☒ a. no net charge, but does have a net electric field
- ☐ b. has net charge and a net electric field
- ☐ c. has net charge but does not have a net electric field
- ☐ d. no net charge and no net electric field

Question 5

Not yet answered

Marked out of 1

 Flag question

In the figure below the appropriate expression for the currents at the node is.....

Select one:

☐ A $I_5 - I_4 - I_3 - I_2 - I_1 = 0$

☐ B $I_5 + I_1 + I_2 + I_3 + I_4 = 0$

☐ C $I_1 + I_2 + I_3 + I_4 + I_5 = 0$

☐ D $I_3 + I_4 + I_5 + I_2 = 0$

Question 2

Not yet answered

Marked out of 1

Flag question

Which of the following is true about intrinsic semiconductor?

- i. Each semiconductor atom undergo paired sharing of electrons with four neighbouring atoms.
- ii. Conduction is due equally to holes and electrons.
- iii. Group V atoms in the semiconductor share four electrons with four neighbouring atoms with an extra electron.
- iv. Band structure is between that of metals and insulators.

Select one:

- ☐ a. i, ii, iii.
- ☐ b. i, ii, iv.
- ☐ c. i, ii.
- ☐ d. i, iii.

Question 3

Not yet answered

Marked out of 1

Flag question



- ☐ a. 28.80%
- ☐ b. 88.2%
- ☒ c. 30.6%
- D. 69.4%

Question 15

Not yet answered

Marked out of 1

Flag question

A potential difference of 240v is applied across the heating coil of an electric kettle driven by a current of 8A through the coil. Calculate the resistance of the coil

Select one:

- ☐ a. 3 Ohms
- ☐ b. 30 Ohms
- ☐ c. 1920 Ohms
- ☐ d. 19.2 Ohms

- ☐ a. the electric field
- ☐ b. the capacitor
- ☐ c. None of these
- ☒ d. the plates

Question 4

Not yet answered

Marked out of 1

 Flag question

What is the magnitude of a point charge whose electric field 50 cm away has magnitude 2.0N/C?

Select one:

- ☐ a. $3.76 \times 10^{-11} \text{ C}$
- ☐ b. $4.05 \times 10^{-11} \text{ C}$
- ☐ c. $5.56 \times 10^{-11} \text{ C}$
- ☐ d. $2.00 \times 10^{-11} \text{ C}$

Question 5

Not yet answered

Marked out of 1

 Flag question

The emf of a battery is equal to its terminal potential difference:



- ☐ a. 3.45pF
- ☐ b. 3.45 $\mu F\mu F$
- ☐ c. 8pF
- ☒ d. 3.54Pf

Question 7

Not yet answered

Marked out of 1

[Flag question](#)

An electron is situated in a uniform electric field of intensity $1.2 \times 10^5 \text{ N/C}$. Calculate the time it takes travel 20mm from rest if the charge is $1.6 \times 10^{-19} \text{ C}$ and the mass is $9.1 \times 10^{-31} \text{ kg}$

A. $3.25 \times 10^{-6} \text{ s}$

Select one:

- ☐ a. $2.31 \times 10^{-6} \text{ s}$
- ☐ b. $1.38 \times 10^{-5} \text{ s}$
- ☐ c. $1.38 \times 10^{-8} \text{ s}$

Question 8

Not yet answered

Marked out of 1

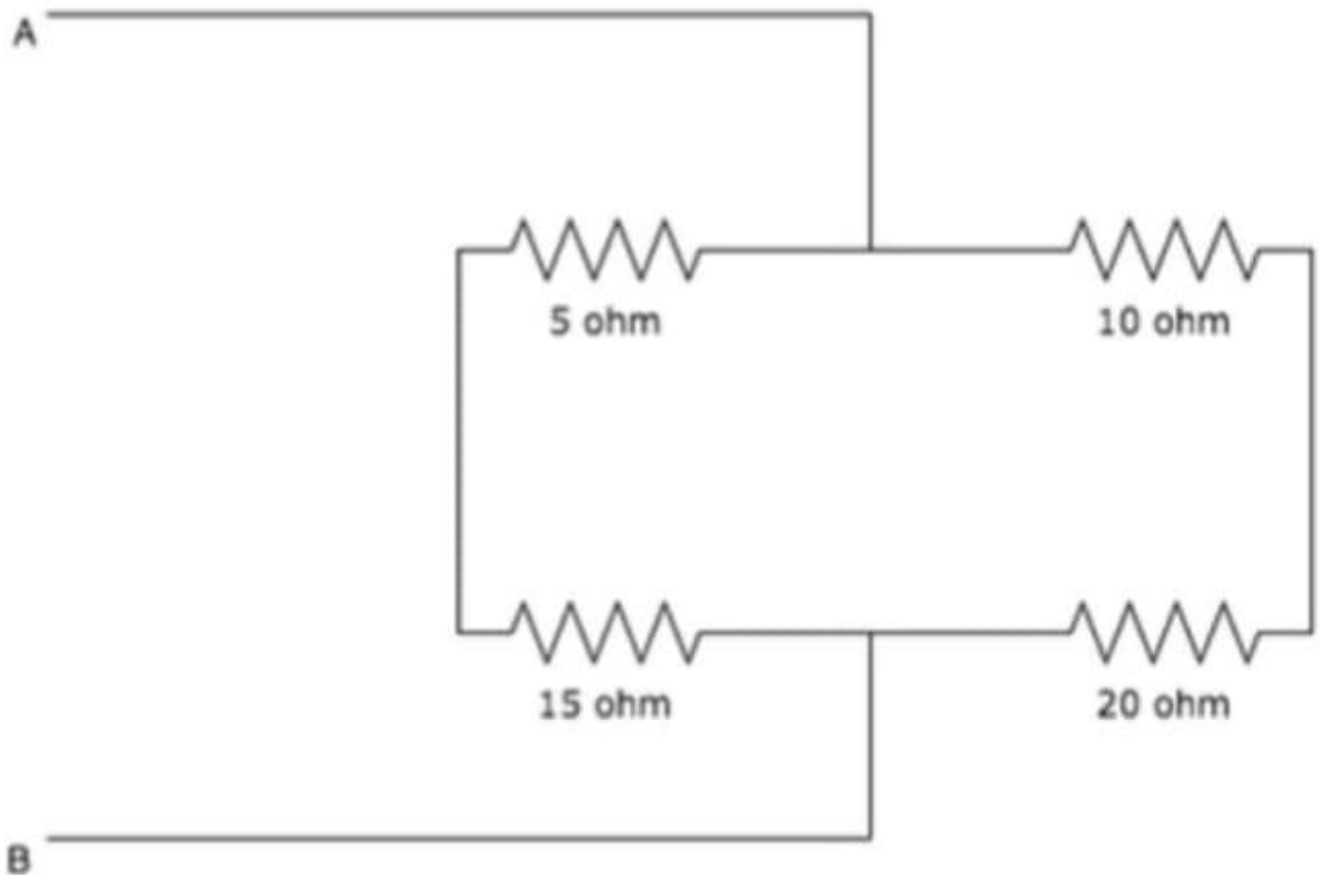
[Flag question](#)

Magnetic flux is

Select one:

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

- ☐ d. none of the above

Question 15

Not yet answered

Marked out of 1

 Flag question

A copper coil has a resistance of 200 ohms when its mean temperature is 0 degree centigrade. Calculate the resistance of the coil when its mean temperature is 80 degree centigrade. Temperature coefficient of copper is 0.004041 centigrade

Select one:

- ☐ a. 264.65 ohm
- ☒ b. 264.65 kilo-ohm
- ☐ c. 286.65 ohm
- ☐ d. 286.65 kilo-ohm

Finish attempt ...

If the flow of electric current is parallel to magnetic field, the force will be

Select one:

- a. maximum
- b. negative
- c. zero
- d. positive

Question 14

Not yet answered

Marked out of 1

 Flag question

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

Select one:

- ☒ a. $0.098\text{Nm}^2/\text{C}$
- ☐ b. $0.170\text{Nm}^2/\text{C}$
- ☐ c. $0.090\text{Nm}^2/\text{C}$
- ☐ d. $0.196\text{Nm}^2/\text{C}$

- ☐ b. Copper
- ☐ c. Germanium
- ☐ d. Mica

Question 4

Not yet answered — Marked out of 1

Flag question

Two plates of a capacitor are 2.70 m apart while the potential difference at the plates is 76.0 volts. What is the electric field intensity on each of the plates?

Select one:

- ☐ a. 28.1 V/m
- ☐ b. 205.2 V/m
- ☐ c. 25.8 V/m
- ☐ d. 20 V/m

Question 5

Not yet answered — Marked out of 1

Flag question

When a pure semiconductor is heated, its resistance

Select one:

- ☐ a. increases
- ☐ b. decreases

Select one:

- ☐ a. 1:2
- ☐ b. 1:1
- ☐ c. 1:2
- ☐ d. $V_2:1$

Question 7

Not yet answered

Marked out of 1

Flag question

A transformer has 200 turns in its primary coil and 600 turns in its secondary coil. If the current in the primary coil is 12.0 A, what is the current in the secondary coil?

Select one:

- ☐ a. 0.4 A
- ☐ b. 4.0 A
- ☐ c. 40.0 A
- ☐ d. 0.04A

Question 8

Not yet answered

Marked out of 1

Flag question

A current 3A flows through a metre length conductor. Calculate the force experienced by this conductor if it is placed in a magnetic field of 0.5 T .

☐ d. doubles

Question 6

Not yet answered

Marked out of 1

 Flag question

Two identical conducting plates of plate area A are separated by a distance d to form a parallel plate air capacitor. Now a metal sheet of thickness $d/2$ is inserted between the plates of the capacitor. The ratio of capacitance before the insertion of plate and after the insertion of plate is

Select one:

- ☐ a. 1:2
- ☐ b. 1:1
- ☐ c. 1:2
- ☐ d. $\sqrt{2}$:1

Question 7

Not yet answered

Marked out of 1

 Flag question

A transformer has 200 turns in its primary coil and 600 turns in its secondary coil. If the current in the primary coil is 12.0 A, what is the current in the secondary coil?

Select one:

- ☐ a. 0.4 A
- ☐ b. 4.0 A

☐ d. 2400 C

Question 2

Not yet answered

Marked out of 1

 Flag question

Calculate the current in a capacitor having 2 V supply voltage and 3V capacitance in 2 s

Select one:

☐ a. 2 A

☐ b. 6 A

☐ c. 5 A

☐ d. 3 A

Question 3

Not yet answered

Marked out of 1

 Flag question

By accelerating magnet inside coil, current in it

- ☐ b. 120 V
- ☐ c. 480 V
- ☐ d. 960 V

Question 10

Not yet answered

Marked out of 1

 Flag question

What change in potential difference does a $4\mu\text{C}$ charge experiences when it moves between two points that differs in potential difference by 80V?

Select one:

- ☐ a. $3.2 \times 10^{-6} \text{ J}$
- ☐ b. $3.2 \times 10^{-5} \text{ J}$
- ☐ c. $3.2 \times 10^{-4} \text{ J}$
- ☐ d. $3.2 \times 10^{-3} \text{ J}$

Question 11

Not yet answered

Marked out of 1

 Flag question

☒ c. 1.25 J

☐ d. 50 J

Question 13

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. i, ii

☒ d. none

Question 14

Not yet answered

Marked out of 1

 Flag question

Direction of conventional current is

Select one:

☐ a. direction of neutron flow

☐ b. direction of electron flow

☒ c. direction of flow of positive charge

☐ d. same as that of electric current

- ☐ a. volt
- ☐ b. Newton's law
- ☐ c. Pascal
- ☐ d. omega

Question 7

Not yet answered

Marked out of 1

[Flag question](#)

The plates of a parallel-plate capacitor are 2 mm apart and 5 m^2 in area. The plates are in a vacuum. A potential difference of 2000 volts is applied across the capacitor. Calculate the magnitude of the electric field between the plates.

Select one:

- ☐ a. $2.8 \times 10^6 \text{ V/m}$
- ☐ b. $1.0 \times 10^6 \text{ V/m}$
- ☐ c. $2.5 \times 10^6 \text{ V/m}$
- ☐ d. $2.0 \times 10^6 \text{ V/m}$

Question 8

Not yet answered

Marked out of 1

[Flag question](#)

Which one of the following represents correct units for electric field strength?

Select one:

- ☐ a. T
- ☐ b. N/C
- ☐ c. J / C
- ☐ d. $\text{N} \cdot \text{m}^2 \cdot \text{C}^{-2}$

Question 9

Not yet answered

Marked out of 1

[Flag question](#)

The value of electric field vector $\vec{E}$ along the surface of constant potential of 100V is

Select one:

- ☐ a. 100V/m
- ☐ b. -100V/m
- ☐ c. 10V/m
- ☐ d. Zero

Question 10

Not yet answered

Marked out of 1

[Flag question](#)

A 3.0 mF and a 13.0 mF capacitor are connected in series, and the series arrangement is connected in parallel to a 25.0 mF capacitor. How much capacitance would a single capacitor need to replace the three capacitors?

Select one:

- ☐ a. 27 mF
- ☐ b. 24 mF
- ☐ c. 16 mF
- ☐ d. 12 mF

Question 11

Not yet answered

Marked out of 1

[Flag question](#)

☒ d. 19A

Question 15

Not yet answered

Marked out of 1

 Flag question

The capacitor has a capacitance of $4.0\ \mu\text{F}$. The resistor has resistance of $2.5\ \text{M}\Omega$. Calculate the maximum value of the charging current and the charge stored by the capacitor when the capacitor is fully charged.

Select one:

- ☒ a. $4\ \mu\text{A}$, $40\ \mu\text{C}$ μC
- ☐ b. $40\ \mu\text{A}$, $400\ \mu\text{C}$ μC
- ☐ c. $40\ \mu\text{A}$, $40\ \mu\text{C}$ μC
- ☐ d. $4.0\ \mu\text{A}$, $4.0\ \mu\text{C}$ μC

Announcements

Jump to...



Finish attempt ...

Light bulb has a power rating of 100 W. It is connected to a 240 V AC supply for 60 seconds and produced heat of 2400 joules. Find the efficiency of the light bulb.

Select one:

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

Question 14

Not yet answered

Marked out of 1

[Flag question](#)

Three resistors (2 Ohms, 4 Ohms, 5 Ohms) are connected in parallel with a potential difference of 20V maintained across them find the total current

Select one:

- ☐ a. 10A
- ☐ b. 2A
- ☐ c. 11A
- ☐ d. 19A

Question 15

Not yet answered

Marked out of 1

[Flag question](#)

The capacitor has a capacitance of $4.0 \mu\text{F}$. The resistor has resistance of $2.5 \text{ M}\Omega$. Calculate the maximum value of the charging current and the charge stored by the capacitor when the capacitor is fully charged.

Select one:

- ☐ a. $4 \mu\text{A}$, $40 \mu\text{C}$
- ☐ b. $40 \mu\text{A}$, $400 \mu\text{C}$
- ☐ c. $40 \mu\text{A}$, $40 \mu\text{C}$
- ☐ d. $4.0 \mu\text{A}$, $4.0 \mu\text{C}$

☐ c. $BI = K\vec{O}AN$

☐ d. $K\vec{O} = BA/IN$

Question 11

Not yet answered

Marked out of 1

Flag question

Field which does not have magnetic poles is

Select one:

☐ a. straight lined

☐ b. normal to the wire

☒ c. tangent to the wire

☐ d. circular

primary coil?

Select one:

- ☐ a. 60 V
- ☒ b. 120 V
- ☐ c. 480 V
- ☐ d. 960 V

Question 10

Not yet answered

Marked out of 1

 Flag question

What change in potential difference does a $4\mu\text{C}$ charge experiences when it moves between two points that differs in potential difference by 80V ?

Select one:

- ☐ a. $3.2 \times 10^{-6} \text{ J}$
- ☐ b. $3.2 \times 10^{-5} \text{ J}$
- ☐ c. $3.2 \times 10^{-4} \text{ J}$
- ☐ d. $3.2 \times 10^{-3} \text{ J}$

Question 11

Not yet answered

Marked out of 1

 Flag question

Which of the following statements



d. 3 A

Question 3

Not yet answered

Marked out of 1

Flag question

By accelerating magnet inside coil, current in it

Select one:

- ☐ a. **increases**
- ☐ b. **decreases**
- ☐ c. **remains constant**
- ☐ d. **reverses**

Question 4

Not yet answered

Marked out of 1

Flag question

four cells each of e.m.f 1.5 V are



c. 26.67 ohm



d. 10.67 ohm

Question 7

Not yet answered

Marked out of 1

 Flag question

Which of the following statements describes an example of induced magnetism?

Select one:

- ☐ a. two north poles repel each other, but a north pole attracts a south pole
- ☐ b. a bar magnet, swinging freely, comes to rest pointing N-W
- ☐ c. a bar magnet loses its magnetism if it is repeatedly dropped
- ☐ d. a bar magnet attracts a piece of soft iron

Question 8

Not yet answered

Marked out of 1

 Flag question

Question 12

Not yet answered

Marked out of 1

 Flag question

If the potential difference across a resistor is doubled:

Select one:

- ☒ a. only the current is doubled
- ☐ b. only the current is halved
- ☐ c. only the resistance is doubled
- ☐ d. only the resistance is halved

Question 13

Not yet answered

Marked out of 1

 Flag question

A given RLC circuit has $R = 100\Omega$, $L = 1\text{H}$ and $C = 10\mu\text{F}$ all connected in series with a source of $200\sin \omega t$ with $\omega = 400$. Calculate the rms current

Question 1

Not yet answered

Marked out of 1

Flag question

A parallel plate capacitor has an area of 2000 cm^2 , and the plates are 1 cm apart. The original potential difference between them, V_0 , is 3000 volts , and it decreases to 1000 volts when a sheet of dielectric is inserted between the plates. Compute the original electric intensity E_0 between the plates.

Select one:

- ☐ a. $5.0 \times 10^5 \text{ V/m}$
- ☐ b. $6.0 \times 10^5 \text{ V/m}$
- ☐ c. $3.3 \times 10^5 \text{ V/m}$
- ☒ d. $3.0 \times 10^5 \text{ V/m}$

Question 2

Not yet answered

Marked out of 1

Flag question



... Silicon is heated to a temperature above 100°C

- ☐ d. Silicon is doped with Sodium

Question 14

Not yet answered

Marked out of 1

 Flag question

An inductor of 2.5H is connected across a 120V , 60Hz supply.

Calculate the current flowing in the inductor.

Select one:

- ☐ a. **3.46A**
- ☐ b. **1.52A**
- ☐ c. **0.13A**
- ☐ d. **0.06A**

Question 15

Not yet answered

Marked out of 1

 Flag question

Two electric bulbs have resistances in the ratio $1:2$. If they are joined in series, the energy consumed in



Silicon is heated to a temperature above 100°C

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Question 14

Not yet answered

Marked out of 1

Flag question

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Question 15

Not yet answered

Marked out of 1

Flag question

Two electric bulbs have resistances in the ratio $1:2$. If they are joined in series, the energy consumed in them is in the ratio?

Select one:

- ☒ a. $1:2$
- ☐ b. $2:1$
- ☐ c. $1:4$

- ☒ d. $3.0 \times 10^{-3} \text{ V/m}$

Question 2

Not yet answered

Marked out of 1

Flag question

Capacitor $C_1 = 5\mu\text{F}$ and $C_2 = 8\mu\text{F}$ are connected in series across a 9V battery. How much energy do they store?

Select one:

- ☐ a. $4 \times 10^{-2} \text{ J}$
- ☐ b. 40000 J
- ☐ c. $1.25 \times 10^{-4} \text{ J}$
- ☐ d. $1.25 \times 10^{-3} \text{ J}$

Question 3

Not yet answered

Marked out of 1

Flag question

A semiconductor has _____ temperature coefficient of resistance.

Question 12

Not yet answered

Marked out of 1

Flag question

In a semiconductor crystal, if current flows due to breakage of crystal bonds, then the semiconductor is called

Select one:

- ☐ a. acceptor
- ☐ b. donor
- ☐ c. intrinsic semiconductor
- ☐ d. Extrinsic semiconductor

Question 13

Not yet answered

Marked out of 1

Flag question

A P-type semiconductor is produced when.

Select one:

- ☐ a. Silicon is doped with Phosphorus
- ☐ b. Silicon is doped with Boron

Select one

- ☐ a. Remains constant
- ☐ b. Increases
- ☐ c. Either decrease or remain constant
- ☒ d. Decrease

Question 3

Not yet answered

Marked out of 1

Flag question

When the current flowing in a coil is doubled and the number of turns of the coil in it is halved, the magnetic field at its centre will become

Select one

- ☐ a. four times
- ☐ b. same
- ☒ c. half
- ☐ d. double

Question 4

Not yet answered

Marked out of 1

Flag question

- ☐ a. four times
- ☐ b. same
- ☒ c. half
- ☐ d. double

Question 4

Not yet answered

Marked out of 1

Flag question

In the figure below the appropriate expression for the currents at the node is.....

Select one:

- ☐ a. $I_5 - I_4 - I_3 - I_2 - I_1 = 0$
- ☐ b. $I_5 + I_1 + I_2 - I_3 - I_4 = 0$
- ☒ c. $I_1 + I_2 - I_3 - I_4 - I_5 = 0$
- ☐ d. $I_1 + I_4 + I_5 - I_2 - I_3 = 0$

Question 5

Not yet answered

Marked out of 1

Flag question

Suppose I have a uniform electric field within a parallel plate capacitor with field strength $E = 41 \text{ NC}$. Suppose the capacitor's plates are 0.5 m in length and 0.001 m in width, and the space between the plates is 1.5 cm . What is the

- ☐ a. 6.0 V
- ☐ b. 1.5 V
- ☐ c. 0.375 V
- ☐ d. 2.667 V

Question 5

Not yet answered

Marked out of 1

 Flag question

Two charges with equal magnitude exert an attractive force of 4.0×10^{-4} N on each other. If the magnitude of each charge is 2.0 microcoulomb, how far apart are the charges?

Select one:

- ☐ a. 2.5m
- ☐ b. 9.5m
- ☐ c. 4.5m
- ☐ d. 6.5m

Question 6

Not yet answered

Marked out of 1

 Flag question

Calculate the equivalent resistance

Question 7

Not yet answered

Marked out of 1

Flag question

Which of the following statements describes an example of induced magnetism?

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Question 8

Not yet answered

Marked out of 1

Flag question

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(PHARMACOLOGY, PHARMACY, PHYSICS, PHYSIOLOGY,
PHYSIOTHERAPY)

Question 1

Not yet answered

Marked out of 1

 Flag question

A 60-watt light bulb carries a current of 0.5 A. The total charge passing through it in one hour is:

Select one:

- ☐ a. 3600 C
- ☐ b. 1800 C
- ☐ c. 3000 C
- ☐ d. 2400 C

Question 2

Not yet answered

Marked out of 1

 Flag question

Calculate the current in a capacitor having 2 V supply voltage and 3V capacitance in 2 s

Question 9

Not yet answered

Marked out of 1

Flag question

If a $50\ \mu\text{F}$ 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 frequency of the circuit at peak voltage?

Select one:

- ☐ a. 2000 Hz
- ☐ b. 2000π Hz
- ☐ c. 1000π Hz
- ☐ d. 1000 Hz

Question 10

Not yet answered

Marked out of 1

Flag question

A thin uncharged conducting

- ☐ d. same resistance

Question 10

Not yet answered

Marked out of 1

 Flag question

A metal ball of 10kg with 5 C charges is moving perpendicular to the magnetic field of 5T. The radius of the path is 80 m. What is the speed of the ball and the period of the ball?

Select one:

- ☒ a. 200m/s, 6.0s
- ☐ b. 80m/s, 2.5 s
- ☐ c. 120m/s, 6.0 s
- ☐ d. 200 m/s, 2.5 s

Question 11

Not yet answered

Marked out of 1

 Flag question