أسئلة الامتحان القسم الالكتروني منهج بريدج الخطة C

تاريخ إضافة الملف على موقع المناهج: 2025-02-14 17:11:34

المزيد من مادة فيزياء:	ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

إعداد: School Rashid Bin Hamdan

التواصل الاجتماعي بحسب الصف الثاني عشر المتقدم

صفحة المناهج الإماراتية على فيسبوك					
المواد على تلغرام	التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات	

المزيد من الملفات بحسب الصف الثاني عشر المتقدم والمادة فيزياء في الفصل الثاني

1	الهيكل الامتحاني الوزاري الجديد منهج بريدج الخطة M
2	الهيكل الامتحاني الوزاري الجديد منهج بريدج الخطة C
3	مراجعة الوحدة السادسة دوائر التيار المستمر
4	عرض بوربوينت شرح القسم السادس المغناطيسية
5	عرض بوربوينت شرح المجالات المغناطيسية للتيار الكهربائي المستمر

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1

An electric device with power of (2400 W) has a resistance of (5.0 Ω). What is the **potential difference** needed to operate the device ?

(Neglect the effect of temperature change)

An electrical device has a capacity of (2400W) and a resistance of (5.0 Ω) . What is the amount of **electrical potential difference** ?required to operate the device

(neglecting the effect of temperature change)

Wherever necessary, use the following formulas أينما لزم استخدم العلاقات التالية		
$J = \frac{i}{A}$	$i = \frac{dq}{dt}$	$i = \frac{dq}{dt} = -nev_d A$
$1\,S = \frac{1}{1\,\Omega}$	$\rho = \frac{E}{J}$	$\sigma = \frac{1}{\rho}$
$R = \rho\frac{L}{A}$	$V_{emf} = iR$	$V_{emf} = iR_1 + iR_2 = iR_{eq}$
$dU = i\,dt\,\Delta V$	$i = i_1 + i_2 = \frac{V_{emf}}{R_1} + \frac{V_{emf}}{R_2} = V_{emf}\left(\frac{1}{R_1} + \frac{1}{R_2}\right)$	$R = \frac{\Delta V}{i}$
$R = \frac{\Delta V}{i}$	$P = \frac{dU}{dt} = \frac{i\,dt\,\Delta V}{dt} = i\Delta V$	$E = \frac{\Delta V}{L}$
$dU = i\,dt\,\Delta V$	$\sum_{j=1}^{m} V_{emf,j} - \sum_{k=1}^{n} i_k R_k = 0$	$q(t) = q_{max}\left(1 - e^{-t/\tau}\right)$
$\sum_{k=1}^{n} i_k = 0$	$i = \frac{dq}{dt} = \left(\frac{V_{emf}}{R}\right)e^{-t/RC}$	$q(t) = q_{max}e^{-t/RC}$
$R_u = \frac{R_1}{R_3}R_v$	$i(t) = \frac{dq}{dt} = -\left(\frac{q_{max}}{RC}\right)e^{-t/RC}$	$\vec{F}_B = q\vec{v} \times \vec{B}$
$r = \frac{mv}{\lvert q\rvert B}$	$\vec{F}_B = i\vec{L} \times \vec{B}$	$\tau = N\tau_1 = NiAB\sin\theta$
$d\vec{E} = \frac{1}{4\pi\varepsilon_0}\frac{dq}{r^3}\vec{r} = \frac{1}{4\pi\varepsilon_0}\frac{dq}{r^2}\hat{r}$	$d\vec{B} = \frac{\mu_0}{4\pi}\frac{id\vec{s} \times \vec{r}}{r^3} = \frac{\mu_0}{4\pi}\frac{id\vec{s} \times \hat{r}}{r^2}$	$\mu_0 = 4\pi \times 10^{-7}\ \frac{\mathrm{T\,m}}{\mathrm{A}}$

1. 220 V
2. 12000 V
3. 55.0 V
4. 110 V

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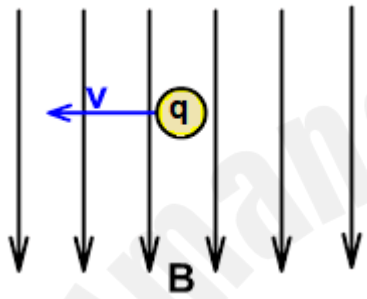
2

A particle has a positive charge and moves to the left at constant velocity, enters a uniform magnetic field of (B) downward,
as seen in the figure . What is the direction of the magnetic force on the particle?

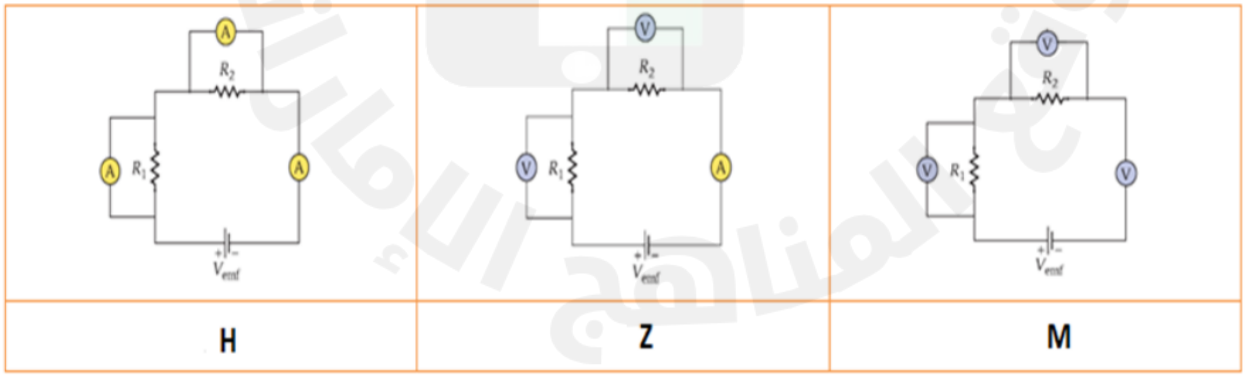
According to the figure , a positively charged particle moving at a constant speed to the left enters a magnetic field (B) downward . What is the direction of the magnetic force acting on the particle ?



1. Into the page
to the inside of the page
2. Out of the page
off page
3. Downward
Down
4. To the left
To the left

3

Which of the following electric circuits is/are working properly ?
Which of the following electrical circuits works correctly ?



1. M
2. H&Z

	3. Z & M 4. Z
4	**An RC circuit consisting of a resistance (R=1000 Ω) and a capacitor and battery. The charge on the capacitor as a function of time is given by:** $q(t) = 1.0 \times 10^{-4}(1 - e^{-t/0.001})$ **What is the electric potential difference of the battery ?** **An RC circuit contains a resistor) R=1000 Ω , (a capacitor, and a battery . The charge on the capacitor is given as a function of time by the following equation)** $q(t) = 1.0 \times 10^{-4}(1 - e^{-t/0.001})$ **What is the voltage difference of the battery ?** **1. 1000 V** **2. 0.001 V** **3. 0.01 V** **4. 100 V**
5	**Three resistors (R, 3R, 6R) are connected in parallel . What is the equivalent resistance of the three resistors?** **Three electrical resistors (R, 3R, 6R) are connected together in ?parallel . What is the equivalent resistance of the three resistors**

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Swift assess exam -Term 2
Physics- Grade 12 ADV.PHY.C.102

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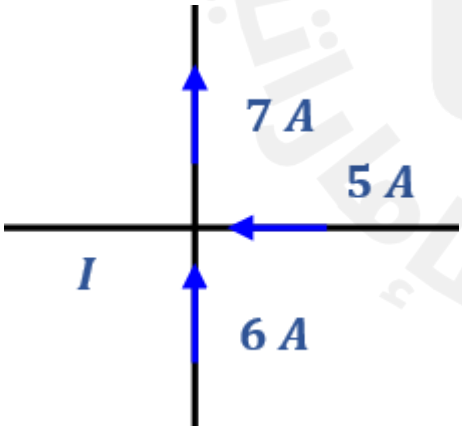
$1\,S = \frac{1}{1\,\Omega}$	$\rho = \frac{E}{J}$	$\sigma = \frac{1}{\rho}$
$R = \rho\frac{L}{A}$	$V_{emf} = iR$	$V_{emf} = iR_1 + iR_2 = iR_{eq}$
$dU = i\,dt\,\Delta V$	$i = i_1 + i_2 = \frac{V_{emf}}{R_1} + \frac{V_{emf}}{R_2} = V_{emf}\left(\frac{1}{R_1} + \frac{1}{R_2}\right)$	$R = \frac{\Delta V}{i}$
$R = \frac{\Delta V}{i}$	$P = \frac{dU}{dt} = \frac{i\,dt\,\Delta V}{dt} = i\Delta V$	$E = \frac{\Delta V}{L}$
$dU = i\,dt\,\Delta V$	$\sum_{j=1}^{m} V_{emf,j} - \sum_{k=1}^{n} i_k R_k = 0$	$q(t) = q_{max}\left(1 - e^{-t/\tau}\right)$
$\sum_{k=1}^{n} i_k = 0$	$i = \frac{dq}{dt} = \left(\frac{V_{emf}}{R}\right)e^{-t/RC}$	$q(t) = q_{max}e^{-t/RC}$
$R_u = \frac{R_1}{R_3}R_v$	$i(t) = \frac{dq}{dt} = -\left(\frac{q_{max}}{RC}\right)e^{-t/RC}$	$\vec{F}_B = q\vec{v} \times \vec{B}$
$r = \frac{mv}{\lvert q\rvert B}$	$\vec{F}_B = i\vec{L} \times \vec{B}$	$\tau = N\tau_1 = NiAB\sin\theta$
$d\vec{E} = \frac{1}{4\pi\varepsilon_0}\frac{dq}{r^3}\vec{r} = \frac{1}{4\pi\varepsilon_0}\frac{dq}{r^2}\hat{r}$	$d\vec{B} = \frac{\mu_0}{4\pi}\frac{id\vec{s} \times \vec{r}}{r^3} = \frac{\mu_0}{4\pi}\frac{id\vec{s} \times \hat{r}}{r^2}$	$\mu_0 = 4\pi \times 10^{-7}\ \frac{\mathrm{T\,m}}{\mathrm{A}}$

A. $\frac{3}{2R}$
B. $\frac{2}{3R}$
C. $\frac{3R}{2}$
D. $\frac{2R}{3}$

6

The figure shows a part of a junction in an electric circuit. What is the **magnitude and direction** of current (I) ?

The figure shows a connection in an electric circuit. What is **the magnitude and direction of the current** (I) ?



1. **8A right**
   8A to the right

	2. **8A left** **8A to the left** 3. **4A right** **4A right** 4. **4A left** **4A to the left**
7	If $B = \frac{\mu_o i}{x r_\perp}$ for the magnetic field at a perpendicular distance $r_\perp$ from a long straight wire carrying a current i What is x? If there is $B = \frac{\mu_o i}{x r_\perp}$ a magnetic field at a perpendicular distance $r_\perp$ from a long straight wire carrying a current i. What is the magnitude of x? 1. 4πr 2. 4π 3. π 4. 2π
8	**According to the figure shows a permanent magnet, if you put a compass needle at the point P. Which of the following represents the correct direction of the compass needle ?** **According to the figure showing the magnetic field lines of a magnet, if a compass needle is placed at point P , which of the following represents the correct direction for the ? compass needle**

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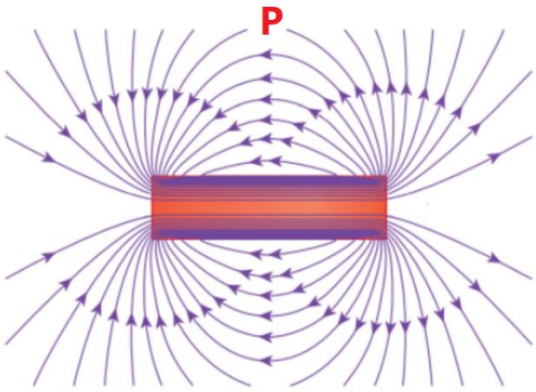
Physics- Grade 12 ADV.PHY.C.102



1.

2.

3.

4.

9 Which of the following is true regarding resistivity and resistance of a wire ?

? Which of the following is true regarding the resistivity and resistance of a wire

1. The resistance of the wire is directly proportional to its cross-sectional area

The resistance of a wire is directly proportional to its cross-sectional area.

2. The resistance of the wire is inversely proportional to its length

The resistance of a wire is inversely proportional to its length.

3. Per unit length and per unit cross-sectional area for any material the same resistance

For each unit of length and for each unit of cross-sectional area of any material the resistance is the same.

4. The resistivity of the wire depends on its material type

The resistance of a wire depends on the type of its material.

Hamdan Bin Rashid secondary School, Dubai
Swift assess exam -Term 2
Physics- Grade 12 ADV.PHY.C.102

10 If the given equation between the charge in coulomb and the time in second is $(q = xt^2 + 2)$, When the current is equal to 10 milli-ampere at t=2s . What is the value of x in C/s ^{2} unit ?

If the given relationship between charge in coulombs and time in seconds is $(q = xt^2 + 2)$, and the electric current is 10 milliamperes at time t=2s . What is the value of x in C/ s^2 ?

A	$5.0 \times 10^{-3} \frac{C}{s^2}$
B	$2.5 \times 10^{-2} \frac{C}{s^2}$
C	$4.0 \times 10^{-2} \frac{C}{s^2}$
D	$2.5 \times 10^{-3} \frac{C}{s^2}$

11 Two wires X and Y, X with cross-sectional area equal to $(5.0 \times 10^{-5} m^2)$ and Y with cross-sectional area equal to $(3.0 \times 10^{-5} m^2)$. If the two wires are carrying the same current, which of the following is correct about the current density J in the wires ?

Two conducting wires X and Y Cross-sectional area of wire X $(5.0 \times 10^{-5} m^2)$ The cross-sectional area of the wire is Y. If the same current flows through the two wires, which of the $(3.0 \times 10^{-5} m^2)$?following is true regarding the electric current density J in the two wires

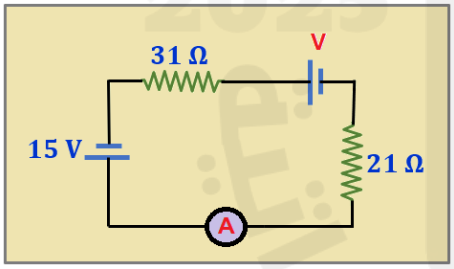
Hamdan Bin Rashid secondary School, Dubai
Swift assess exam -Term 2
Physics- Grade 12 ADV.PHY.C.102

	A	$J_X = \frac{5J_Y}{3}$
	B	$J_X = \frac{9J_Y}{25}$
	C	$J_X = \frac{25J_Y}{9}$
	D	$J_X = \frac{3J_Y}{5}$

12

Depending on the circuit, if the reading of ammeter is **1.0** A.
What is the potential difference of the battery **V** ?

Depending on the circuit , if the ammeter reads 1.0A , **what is the battery voltage V** ? ?



1. 1.0 A
2. 15 A
3. 67 A
4. 37 V

13

A coil (What is the ratio of the torques $(\frac{\tau_X}{\tau_Y})$?

If coil (X) consists of (600) rings and coil (Y) consists of (1600) rings. If the torque acting on each ring of coil (X) is equal to the torque acting on each ring of coil (Y). What is the ratio between the $(\frac{\tau_X}{\tau_Y})$? two torques

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1. $\frac{64}{9}$
2. $\frac{9}{64}$
3. $\frac{8}{3}$
4. $\frac{3}{8}$

14

Based on the circuit that shows three resistors, each with a value of R =3Ω , and a battery of potential difference V. What is the value of the battery potential difference V ?

Given the circuit showing three resistors, each with a value of R=3 Ω , and a battery with a potential difference of V , what is the value of the battery ? potential difference V

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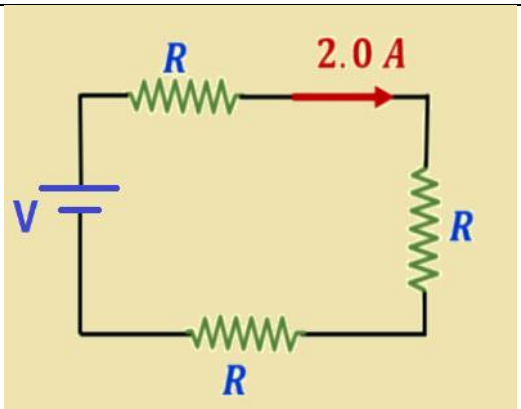
Swift assess exam -Term 2
Physics- Grade 12 ADV.PHY.C.102

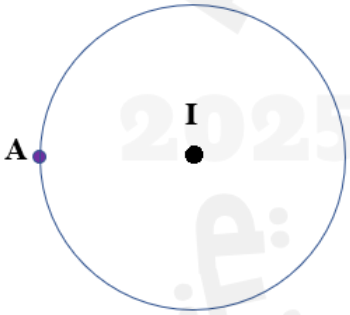


1. 1.5 V
2. 6 V
3. 12 V
4. 18 V

15

The figure shows a wire with current (I) running through it out of the page. What is the direction of the magnetic field at point (A) due to this current?

The figure shows a conducting wire carrying a current (I) out of the page. What is the direction ?of the magnetic field resulting from this current at point (A)



A	
B	

	C	
	D	
15		