

تم تحميل هذا الملف من موقع المناهج الإماراتية



أوراق عمل مراجعة الوحدة الثالثة الجهد الكهربائي

موقع المناهج ← المناهج الإماراتية ← الصف الثاني عشر المتقدم ← فيزياء ← الفصل الأول ← أوراق عمل ← الملف

تاريخ إضافة الملف على موقع المناهج: 2024-10-14 00:05:28

ملفات اكتب للمعلم اكتب للطالب الاختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي للمدرس

المزيد من مادة
فيزياء:

إعداد: مهند سامي كراجه

التواصل الاجتماعي بحسب الصف الثاني عشر المتقدم



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

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

حل مراجعة الوحدة الثانية المجالات الكهربائية وقانون جاوس

1

ملخص وتدريبات الوحدة الثالثة potential Electric الجهد الكهربائي

2

اختبار تجريبي في الوحدة الثانية المجالات الكهربائية وقانون جاوس

3

ملخص وتدريبات الوحدة الثالثة potential Electric الجهد الكهربائي

4

حل أوراق عمل الدرس الأول Potential Electric الطاقة الكامنة الكهربائية من الوحدة الثالثة

5



مركز أم الإمارات

Electric potential Review

Grade 12A / Ministry of education syllabus

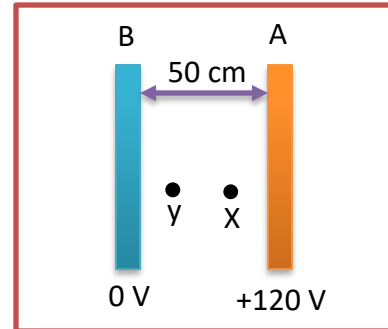
The academic year 2020-2021

Teacher: Mohanned Karajah

Chose the correct answer for each of the following questions.

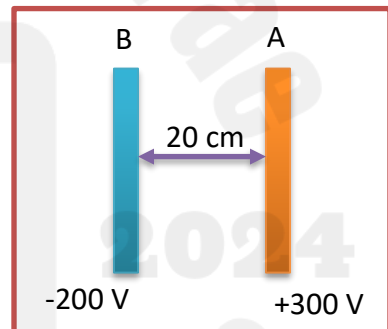
- 1- Two plates (A,B) shown in the figure, separated by 50 cm distance, what is the electric potential difference between the two points (x, y) if they are 30 cm apart ?

- A. 72 V
- B. 89 V
- C. 120 V
- D. 135 V



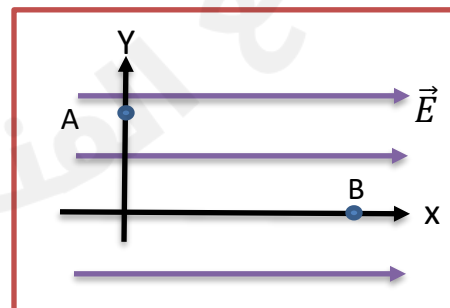
- 2- Two plates (A,B) shown in the figure, separated by 20 cm distance, an electron released from rest 5 cm from plate A, what is the speed of the electron when it reaches plate A?

- A. 6.6×10^6 m/s
- B. 3.4×10^6 m/s
- C. 2.9×10^6 m/s
- D. 1.5×10^6 m/s



- 3- Rely on the figure and find the change in electric potential energy of a proton moves in a uniform electric field of 3000 V/m strength from point A (0,3) cm to point B (6,0) cm?

- A. $+2.9 \times 10^{-17}$ J
- B. -1.3×10^{-17} J
- C. $+1.3 \times 10^{-17}$ J
- D. -2.9×10^{-17} J



4- An infinite conducting plate in the x-z plane has a uniform charge distribution of $-13\mu\text{C}/\text{cm}^2$, what is the work done by the electric field on $-3.0\mu\text{C}$ charged object to move from point A ($y_A=3.0\text{ cm}$) to point B ($y_B=6.0\text{ cm}$) on y-axis?

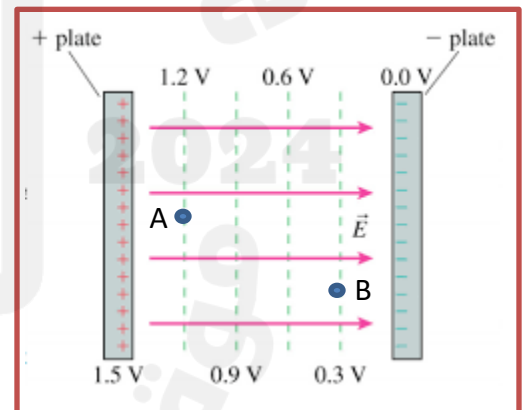
- A. $+4.2\times 10^3\text{ J}$
- B. $-1.3\times 10^3\text{ J}$
- C. $+1.3\times 10^3\text{ J}$
- D. $-4.2\times 10^3\text{ J}$

5- What is the work done by uniform electric field of 5000 V/m strength, to move a dipole of $5.0\times 10^{-6}\text{ C.m}$ moment, from $\theta=90^\circ$ to $\theta=40^\circ$?

- A. $1.9\times 10^{-2}\text{ J}$
- B. $3.6\times 10^{-2}\text{ J}$
- C. $4.1\times 10^{-2}\text{ J}$
- D. $5.3\times 10^{-2}\text{ J}$

6- What is the work done by uniform electric field on a proton to move from point A to point B as shown in the figure?

- A. $1.4\times 10^{-19}\text{ J}$
- B. $2.5\times 10^{-19}\text{ J}$
- C. $3.1\times 10^{-19}\text{ J}$
- D. $4.2\times 10^{-19}\text{ J}$



7- What is the initial acceleration of a particle with a charge of $1.0\mu\text{C}$ and mass of 2.0 mg , after it touches a point at position $x=2.0\text{ m}$ in a region where the electric potential varies according to $(V(x) = -3x^2 + 2x)\text{ Volt}$

- A. 3.2 m/s^2
- B. 4.4 m/s^2
- C. 5.0 m/s^2
- D. 6.2 m/s^2

8- Which of the following is one of the lithium- ion battery's disadvantages?

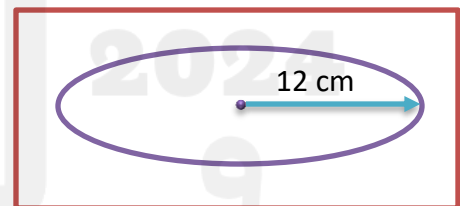
- A. It can no longer recharged, if it is completely discharge.
- B. It has much lower energy density than conventional batteries.
- C. I can recharge one hundred times.
- D. It has a memory effect.

9- A positive charge of $4.5 \mu\text{C}$ is fixed in place. A particle of mass 6.0 g and charge $+3.0 \mu\text{C}$ is fired with an initial speed of 66 m/s directly toward the fixed charge from 4.2 cm away. How close does the moving charge get to the fixed charge before it comes to rest?

- A. 2.4 cm
- B. 1.8 cm
- C. 0.92 cm
- D. 0.76 cm

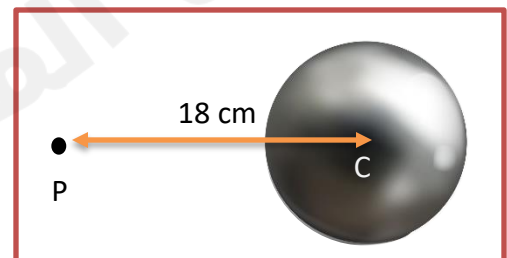
10- What is the electric potential at the center of a metal ring with 12 cm radius and $22 \mu\text{C/m}$ charge distribution?

- A. $1.2 \times 10^6 \text{ V}$
- B. $3.4 \times 10^6 \text{ V}$
- C. $4.8 \times 10^6 \text{ V}$
- D. $5.1 \times 10^6 \text{ V}$



11- What is the charge distribution of the conducting sphere 7.0 cm radius shown in the figure, if the electric potential difference between point (p) = 18 cm from the center and the center of the sphere is: $(V_c - V_p = +12 \text{ V})$?

- A. 4.8 nC/m^2
- B. 2.5 nC/m^2
- C. 1.5 nC/m^2
- D. 9.9 nC/m^2



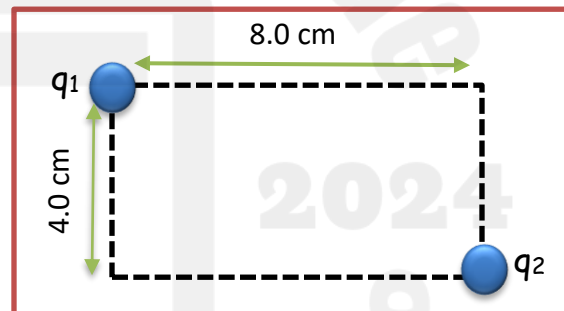
12- Two point charges $q_1 = +3.0\mu\text{C}$ located at point H (3,0) m, $q_2 = -1.0\mu\text{C}$ located at point M (0,4) m, what is the electric potential at point A (3,4)?

- A. $3.7 \times 10^3 \text{ V}$
- B. $5.2 \times 10^3 \text{ V}$
- C. $7.4 \times 10^3 \text{ V}$
- D. $9.7 \times 10^3 \text{ V}$

13- A conducting sphere of 12 cm radius, and a charge of -5.0 nC , what is the electric potential at point 10 cm from the center?

- A. -370 V
- B. -410 V
- C. -530 V
- D. -610 V

14- What is the electric potential energy of the point charges system shown in the figure, $q_1 = +8.0\mu\text{C}$, $q_2 = +5.0\mu\text{C}$?



- A. 6.8 J
- B. 5.9 J
- C. 5.1 J
- D. 4.0 J

15- A solid conducting sphere with radius of 6.0 cm and charge of $2.0\mu\text{C}$, and another neutral conducting solid sphere with radius of 2.4 cm far away from the first sphere, the two spheres are momentarily connected with a wire, which is then removed, what is the charge on the second sphere?

- A. $0.46\mu\text{C}$
- B. $0.57\mu\text{C}$
- C. $0.61\mu\text{C}$
- D. $0.72\mu\text{C}$