

تم تحميل هذا الملف من موقع المناهج الإماراتية



حل أوراق عمل مراجعة الوحدة الأولى الالكترونيات في الذرات باللغة الانجليزية

موقع المناهج ← المناهج الإماراتية ← الصف العاشر المتقدم ← كيمياء ← الفصل الأول ← ملفات متنوعة ← الملف

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

المزيد من مادة
كيمياء:

التواصل الاجتماعي بحسب الصف العاشر المتقدم



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف العاشر المتقدم والمادة كيمياء في الفصل الأول

عرض بوربوينت درس الضوء والطاقة

1

عرض بوربوينت درس خواص المركبات الأيونية

2

عرض بوربوينت درس صيغ المركبات الأيونية وأسمائها

3

عرض بوربوينت الدرس الثالث قواعد توزيع الإلكترونات في الذرة

4

عرض بوربوينت الدرس الرابع reaction chemical a of Enthalpy من الوحدة الأولى

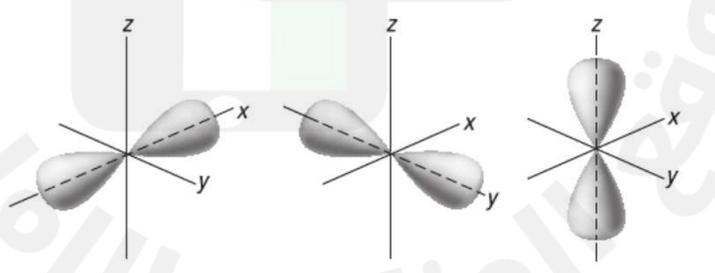
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G10 Advanced Chemistry
Chapter 1 Revision Sheet-Answer Key

Multiple Choice Questions.

Q1.	Cosmic rays are high-energy radiation from outer space. What is the frequency of a cosmic ray that has a wavelength of 2.67×10^{-13} m when it reaches Earth? (The speed of light is 3.00×10^8 m/s.)
a.	$8.90 \times 10^{-22} \text{ s}^{-1}$
b.	$3.75 \times 10^{12} \text{ s}^{-1}$
c.	$8.01 \times 10^{-5} \text{ s}^{-1}$
d.	$1.12 \times 10^{21} \text{ s}^{-1}$

Q2.	Which is the electron-dot structure for indium?
a.	$\cdot \text{In}$
b.	$\cdot \text{In} \cdot$
c.	$\cdot \overset{\cdot}{\text{In}} \cdot$
d.	$\cdot \underset{\cdot}{\text{In}} \cdot$

	<p>Use the figure below to answer Questions 3 and 4.</p> 
Q3.	To which sublevel do all of these orbitals belong?
a.	s
b.	p
c.	d
d.	f

Q4.	How many electrons total can reside in this sublevel?
a.	2
b.	3
c.	6
d.	8

Q5.	What is the maximum theoretical number of electrons related to the fifth principal energy level of an atom?
a.	2
b.	8
c.	18
d.	32

	<p>Use the periodic table and the table below to answer Questions 6 to 8.</p> <table border="1"> <thead> <tr> <th colspan="4">Electron Configurations for Selected Transition Metals</th> </tr> <tr> <th>Element</th> <th>Symbol</th> <th>Atomic Number</th> <th>Electron Configuration</th> </tr> </thead> <tbody> <tr> <td>Vanadium</td> <td>V</td> <td>23</td> <td>[Ar]4s²3d³</td> </tr> <tr> <td>Yttrium</td> <td>Y</td> <td>39</td> <td>[Kr]5s²4d¹</td> </tr> <tr> <td></td> <td></td> <td></td> <td>[Xe]6s²4f¹⁴5d⁶</td> </tr> <tr> <td>Scandium</td> <td>Sc</td> <td>21</td> <td>[Ar]4s²3d¹</td> </tr> <tr> <td>Cadmium</td> <td>Cd</td> <td>48</td> <td></td> </tr> </tbody> </table>	Electron Configurations for Selected Transition Metals				Element	Symbol	Atomic Number	Electron Configuration	Vanadium	V	23	[Ar]4s ² 3d ³	Yttrium	Y	39	[Kr]5s ² 4d ¹				[Xe]6s ² 4f ¹⁴ 5d ⁶	Scandium	Sc	21	[Ar]4s ² 3d ¹	Cadmium	Cd	48	
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Q6.	Using noble-gas notation, what is the ground-state electron configuration of Cd?																												
a.	[Kr]4d ¹⁰ 4f ²																												
b.	[Ar]4s ² 3d ¹⁰																												
c.	[Kr]5s ² 4d ¹⁰																												
d.	[Xe]5s ² 4d ¹⁰																												

Q7.	What is the element that has the ground-state electron configuration [Xe]6s ² 4f ¹⁴ 5d ⁶ ?
a.	La
b.	Ti
c.	W
d.	Os

Q8.	What is the complete electron configuration of a scandium atom?
a.	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^1$
b.	$1s^2 2s^2 2p^7 3s^2 3p^7 4s^2 3d^1$
c.	$1s^2 2s^2 2p^5 3s^2 3p^5 4s^2 3d^1$
d.	$1s^2 2s^1 2p^7 3s^1 3p^7 4s^2 3d^1$

Q9.	Which is NOT evidence that a chemical change has occurred?
a.	The properties of the substances involved in the reaction have changed.
b.	An odor is produced.
c.	The composition of the substances involved in the reaction have changed.
d.	The total mass of all substances involved has changed.

	Use the diagram below to answer Q10 and Q11.
	<p>A. $\begin{array}{c} \boxed{\uparrow\downarrow} \\ 1s^2 \end{array}$ C. $\begin{array}{c} \boxed{\uparrow\downarrow} \quad \boxed{\uparrow\downarrow} \quad \boxed{\uparrow} \quad \boxed{\uparrow} \quad \boxed{\uparrow} \\ 1s^2 \quad 2s^2 \quad 2p^3 \end{array}$</p> <p>B. $\begin{array}{c} \boxed{\uparrow\downarrow} \quad \boxed{\uparrow\downarrow} \\ 1s^2 \quad 2s^2 \end{array}$ D. $\begin{array}{c} \boxed{\uparrow\downarrow} \quad \boxed{\uparrow} \quad \boxed{\uparrow\downarrow} \quad \boxed{\uparrow\downarrow} \quad \boxed{\uparrow\downarrow} \\ 1s^2 \quad 2s^1 \quad 2p^6 \end{array}$</p>
Q10.	Which shows an orbital diagram that violates the Aufbau principle?
a.	A
b.	B
c.	C
d.	D

Q11.	In the diagram in Q10 Which one shows the orbital diagram for the element beryllium?
a.	A
b.	B
c.	C
d.	D

Q12.	A student performs an experiment to measure the boiling point of pentane and measures it at 37.2°C. The literature reports this value as 36.1°C. What is the student's percent error?
a.	97.0%
b.	2.95%
c.	1.1%
d.	3.05%

Q13.	Which method of separating components of a mixture depends on the different boiling points of the components of the mixture?
a.	chromatography
b.	filtration
c.	crystallization
d.	distillation

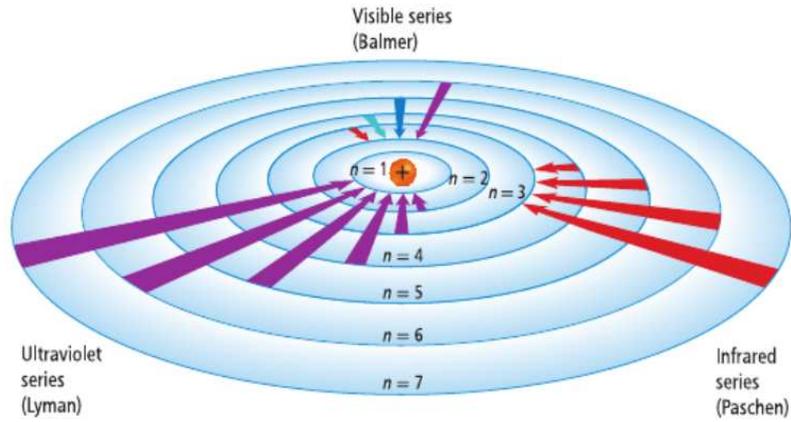
Q14.	Germanium is an element in periodic table with the symbol Ge and an atomic number of 32. What is the correct electron configuration of Germanium?
a.	[Ar]3d ⁹ 4s ³ 4p ²
b.	[Ar]3d ¹⁰ 4s ² 4p ²
c.	[Ar]3d ¹⁰ 4s ¹ 4p ³
d.	[Ar]3d ⁹ 4s ² 4p ³

Q15.	1s ² 2s ² 2p ⁶ 3s ² 3p ⁶ 4s ² 3d ⁶ is the electron configuration of which element in the periodic table?
a.	Manganese, Mn
b.	Nickel, Ni
c.	Cobalt, Co
d.	Iron, Fe

Constructed Response Questions.

<p>Q1</p> <p>a.</p> <p>b.</p> <p>c.</p>	<p>Define the following terms. a. frequency b. wavelength c. quantum d. ground state</p> <p>a. Frequency is the number of waves that pass a given point per second.</p> <p>b. Wavelength is the shortest distance between equivalent points on a continuous wave.</p> <p>c. A quantum is the minimum amount of energy that can be lost or gained by an atom.</p> <p>d. An atom's ground state is its lowest allowable energy state</p> <p>Arrange the following types of electromagnetic radiation in order of increasing wavelength. a. ultraviolet light b. microwaves c. radio waves d. X-rays</p> <p>d. X-rays, a. ultraviolet light, b. microwaves, c. radio wave</p> <p>What is the photoelectric effect?</p> <p>Photoelectric effect is a phenomenon in which a metal emits electrons when light of a sufficient frequency shines on it.</p>

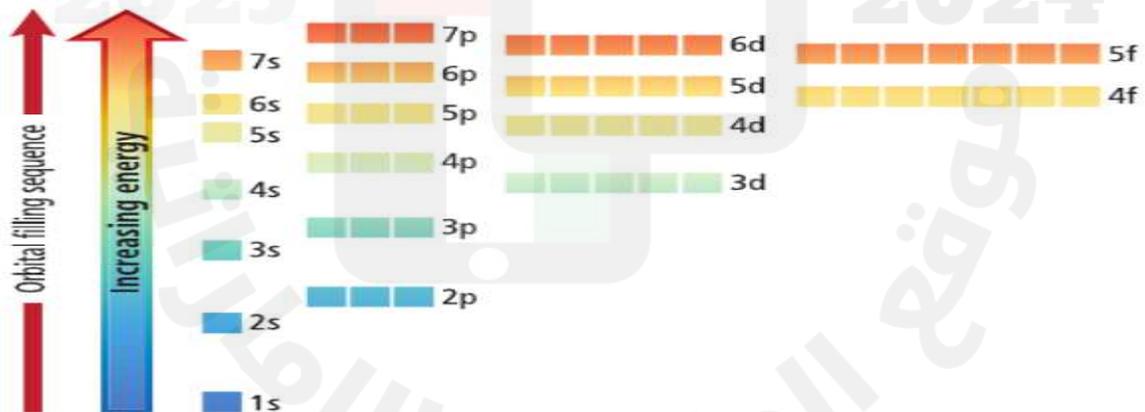
Q2



a. What is an atomic orbital and what does n represent in the quantum mechanical model of the atom?

An atomic orbital is a three-dimensional region around the nucleus describing an electron's probable location

n represents an orbital's principal quantum number, which indicates the relative size and energy of the orbital.



b. In what sequence do electrons fill the atomic orbitals related to a sublevel?

Each orbital must contain a single electron before any orbital contains two electrons.

c. What element is represented by each electron configuration?

a. $[\text{Ar}]4s^2$

b. $[\text{Xe}]6s^24f^4$

c. $[\text{Kr}]5s^24d^{10}5p^4$

d. $[\text{Rn}]7s^25f^{13}$

f. $1s^22s^22p^63s^23p^64s^23d^{10}4p^5$

a. F

b. Ca

c. Nd

d. Te

e. Md

f. Br

