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امتحان الفصل الدراسي الأول

End of Term1 Exam



إذا سألك أحدهم ماذا تريد أن تكون في المستقبل؟ فقل له أريد أن أكون

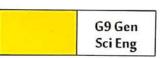
| Student No. | | رقم الطّالب |
|----------------|-------------------|--------------|
| Student Name | Com/ae | اسم الطَّالب |
| Grade & Stream | Grade 9 / General | لصف والمسار |
| Subject: | Science | المادة |

This table is to be filled by markers

. يملأ هذا الجدول بدقة تامة من قبل لجنة التقدير

| رقم السَــوْال Question No. | رجة Ma | | المقدر 1 | المقـدَر2 | |
|-------------------------------------|------------------------|-----------------------|----------|-----------|-----------------|
| Question No. | رقمـــاً In Figures | کتابـــهٔ In Words | Marker 1 | 2 Marker | Reviser المراجع |
| Part I | | | | | |
| Part II | | | | | |
| Part III | | | | | |
| الدَّرجة المستحقّة Allotted Mark | | | | | |









Subject: Science Nbr of Pages: (7)

Grade 9 General Track

End of Term 1 Exam Academic year 2018/2019

Question 1

Underline the correct answer for items (1-15):

1. How does ultraviolet radiation help form atmospheric ozone?

45

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≤ bonds O and O₂

≤ bonds 3 atoms of O

- 2. Which precaution should you take when you see the symbol below?

 - ∠Do not touch broken glass



3. How do you write the distance 1,392000 km in scientific notation?

≤1392x10⁶ km ≤13.92 × 10⁶ km ≤139.2 × 10⁶ km

4. Three students measured the length of a stamp. the table below shows their results. The accepted value is 2.71 cm. Which student's measurements were most accurate?

اۃ

Ы

را

Both students 1 and 2

 Both students 1 and 2

| Me | asured of Valu | es for a Stamp's | Length |
|---------|----------------|------------------|-----------|
| | Student 1 | Student 2 | Student 3 |
| Trial 1 | 2.60 cm | 2.70 cm | 2.75 cm |
| Trial 2 | 2.72 cm | 2.69 cm | 2.74 cm |
| Trial 3 | 2.65 cm | 2.71 cm | 2.64 cm |
| Average | 2.66 cm | 2.70 cm | 2.71 cm |

5. Which of the following is not an SI base unit?

≤kilogram (kg)

ø meter (m)

second (s) scubic centimeter (cm³)

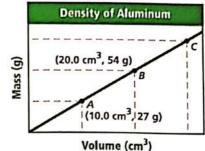


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Continue... End Term 1 Exam G09 Science General Track 2018-2019

- 6. The slope of the line in the graph below shows the density of Aluminium. What is the Aluminium density?
 - ≤ 0.37 g/cm³
- ≤ 0.27 g/cm³
- ≈ 2.7 g/cm³
- ≤ 3.7 g/cm³



- 7. Which of the following has a charge of +1?

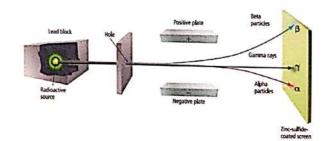
- 8. Which scientist developed the model of the atom shown below?
- & Chadwick
- Rutherford



- 9. Use the table below. Find which two atoms are isotopes.

| Atom | Protons | Neutrons | Electrons |
|------|---------|----------|-----------|
| 1 | 8 | 10 | 8 |
| 2 | 10 | 9 | 10 |
| 3 | 9 | 9 | 9 |
| 4 | 8 | 11 | 8 |

- 10. The radioactivity diagram illustrates that an electric field will deflect radiation in different directions. This depends on the
- electric charge of the radiation.
- mass of the particles of radiation.
- z number of electrons in the radiation.
- speed of the radiation.



- 11. What is the missing particle in the equation below?
- \varkappa α
- e y
- z 27

 $^{131}_{53}I \rightarrow ?+ ^{131}_{54}Xe$



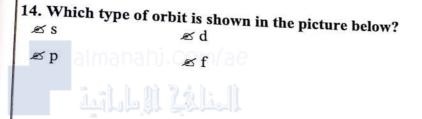
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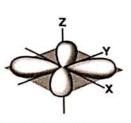
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Continue... End Term 1 Exam G09 Science General Track 2018-2019 12. Which diagram shows the wave with the highest frequency? Ø D MMMMM 13. Using Planck's constant 6.626x 10 -34J.s, what is the amount of energy carried by a photon with a frequency of 5.71x10¹⁴Hz? ≤ 525 nm ≤1.14 × 10-8 J





15. Which element has the electron configuration 1s²2s²2p⁶3s²3p⁶4s¹3d⁵?

$$\mathbb{Z}$$
 Titanium $\binom{48}{22}Ti$ \mathbb{Z} Chromium $\binom{52}{24}Cr$ \mathbb{Z} Sulfur $\binom{32}{16}S$ \mathbb{Z} Selenium $\binom{79}{34}Se$

Question 2

Ø C

A. 16. Which rule for filling of orbitals by electrons is being broken in the orbital diagrams below. Use the name of the principle from the box.

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Aufbau principle – Hund's principle – Pauli exclusion principle

| Orbital Diagram | |
|-----------------|-----------------------|
| | The rule of is broken |
| 1s 2s 2p 3s 3p | |
| | The rule of is broken |
| 1s 2s 2p 3s 3p | |
| | The rule of is broken |
| 1s 2s 2p 3s | |

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Continue... End Term 1 Exam G09 Science General Track 2018-2019

B. 17-Use numbers to match each branch of chemistry in (A) with its areas of study (B)

| A | |
|-------------------------|--|
| () Biochemistry | 1. components and composition of substances |
| () Physical Chemistry | heat involved in chemical processes |
| () Analytical Chemistry | 3. the behavior and changes of matter and the related energy changes |
| () Inorganic Chemistry | 4. matter and processes of living organisms |
| () Thermochemistry | 5. most chemicals that do not contain carbon |
| 137 131 74 | 6. most chemicals that contain carbon |

| C | Solve | the | foll | owing |
|----|-------|-------|------|-------|
| ·- | DUITE | the ! | LUL | owing |

| | 50-50 |
|---|--|
| - | 18 - The temperature in Dubai can reach 104°F in summer. What is the temperature in degrees Celsius? |
| | |
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| | |
| 1 | 9 - A metallic piece of 147g mass and a density of 7.0 g / cm³ is placed in a 50ml graduated cylinder filled with 20ml of water. What will be the new height of water in the graduated cylinder after adding the metallic piece? |
| | |
| | |
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g up

| Continue End Term 1 Exam G09 Science General Track 2018-2019 D. 20.Match the scientist with his atomic theory in the statements below. (Democritus – John Dalton – Aritsotle) Matter is made up of tiny individual particles called atoms, atoms are indivisible Matter is formed by atoms and atoms move through empty space Empty space cannot exist in matter, and matter is made of earth, fire, water, and air A. Write the scientific term in brakets using the suitable words from the following. *atomic orbital – *theory– * mass number-*valence electrons-*atomic number- *law of mass conservation-*derived unit. 21. Mass is conserved in any process, such as a chemical reaction. (| | |
|--|--|---|
| Matter is made up of tiny individual particles called atoms, atoms are indivisible indivisible indivisible Matter is formed by atoms and atoms move through empty space (| Continue End Term 1 Fr | |
| Matter is made up of tiny individual particles called atoms, atoms are indivisible indivisible indivisible Matter is formed by atoms and atoms move through empty space (| D. 20. Match the scientist with | 2019 2015 |
| Matter is made up of tiny individual particles called atoms, atoms are indivisible indivis | Use the scientists' name atomic theory in the | 2018-2019 |
| Matter is made up of tiny individual particles called atoms, atoms are indivisible Matter is formed by atoms and atoms move through empty space Empty space cannot exist in matter, and matter is made of earth, fire, water, and air A. Write the scientific term in brakets using the suitable words from the following atomic orbital — *theory— * mass number-*valence electrons-*atomic number-*law of mass conservation-*derived unit. 21. Mass is conserved in any process, such as a chemical reaction. (| names from the box. | below. |
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| water, and air Question 3 | Matter is formed by atoms and atoms may | |
| water, and air Question 3 | Empty space | (|
| Question 3 A. Write the scientific term in brakets using the suitable words from the following atomic orbital — *theory— * mass number-*valence electrons-*atomic number-*law of mass conservation-*derived unit. 21. Mass is conserved in any process, such as a chemical reaction. (| Empty space cannot exist in matter, and matter in | () |
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| 21. Mass is conserved in any process, such as a chemical reaction. (| , whence electrons- | ^k atomic number- |
| 21. Mass is conserved in any process, such as a chemical reaction. (| *law of mass conservation-*derived unit | |
| 22. Electrons in the atom's outermost orbitals. (| | |
| 22. Electrons in the atom's outermost orbitals. (| 21. Mass is conserved in any process, such as a chemical reaction | () |
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| 23. A 3D zone around the atom nucleus that defines the probable electron location. (| 22. Electrons in the atom's outermost orbitals. | (|
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| 24. The sum of the number of protons and neutrons in the nucleus.() 5. Explanation of a natural phenomenon based on many observations and investigations over time. (| electron location. | () |
| 5. Explanation of a natural phenomenon based on many observations and investigations over time. | | (A) |
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| 5. The unit is defined through the combination of basic units. (| • | () |
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| IT | Continue End Term 1 Exam G09 Science General Track 2018-2019 7. The atom is electrically to the following: |
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| 12 | 77. The atom is electrically neutral. |
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| | . When white light passes through a prism, it is separated into different components. |
| 1 | different components. |
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| 29. | The limits in Bohr's Model. |
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| tir 31. | Write the complete electronic configuration notation of the following elements: |
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| D. Use the histogram below to a | Guy Science General Treat Asset |
| D. Use the histogram below to : | 2 no |
| | mawer the following |
| | questions : |
| | Density Comparison |
| 12.0 | 4-41501 |
| 5 10.0 | |
| Density (cm ³) | |
| 0.0 4.0 | |
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| | Vood Water Sugar Cla |
| | Judel Sugar Cla |
| 32. Which substance has the hig | Materials Mercury |
| almanani.C | nest density? |
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| 23 Which substance L | |
| 33. Which substance has the low | est domest o |
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