Latihan Topikal – Bab 8

1. Antara berikut, yang manakah merupakan unit asas bagi unsur?
   Which of the following is the basic unit of an element?
   A. Atom / *Atom*
   B. Molekul / *Molecule*
   C. Ion / *Ion*
   D. Sebatian / *Compound*

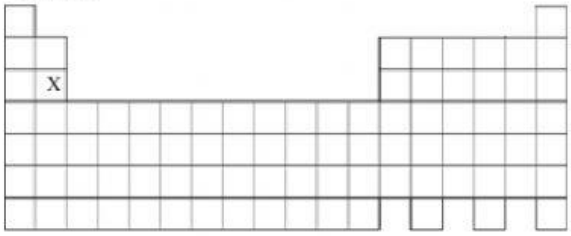
2. Antara berikut, yang manakah merupakan sebatian ion?
   Which of the following is an ionic compound?
   A. Ferum / *Ferum*
   B. Karbon dioksida / *Carbon dioxide*
   C. Nitrogen dioksida / *Nitrogen dioxide*
   D. Natrium klorida / *Sodium chloride*

3. Bahan ion terbentuk apabila,
   An ion is formed when,
   A. Nombor proton dan elektron sama
      Number of protons equals to electrons
   B. Nombor proton melebihi elektron
      Number of protons is more than electrons
   C. Nombor nukleon yang besar
      Large number of nucleons
   D. Bilangan neutron yang sama dengan nombor proton
      Number of neutrons is the same as the number of protons

4. Bagaimanakah unsur-unsur disusun dalam Jadual Berkala?
   How does the elements arrange in the Periodic Table?
   A. Disusun mengikut tertib menaik nombor elektron
      Arranged in the order of increasing electron number
   B. Disusun mengikut tertib menaik nombor proton
      Arranged in the order of increasing proton number
   C. Disusun mengikut tertib menaik nombor neutron
      Arranged in the order of increasing neutron number
   D. Disusun mengikut tertib menaik nombor nukleon
      Arranged in the order of increasing nucleon number

5. Antara berikut, yang manakah benar apabila kita merentas Jadual Berkala dari kiri ke kanan?
   Which of the following is correct when we go across the Periodic Table from left to right?
   A. Sifat logam bertambah
      Property of metals increases
   B. Sifat bukan logam bertambah
      Property of non-metals increases
   C. Kekonduksian elektrik bertambah
      Electric conductivity increases
   D. Kekonduksian haba bertambah
      Heat conductivity increases

6. Rajah 1 menunjukkan Jadual Berkala yang tidak lengkap.
   Diagram 1 shows an incomplete Periodic Table.



Rajah 1 / *Diagram 1*

Berapakah nombor proton bagi unsur X?
What is the proton number for element X?

A. 3 C. 10
B. 5 D. 12

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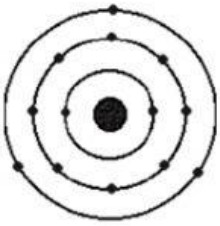
7. Nombor proton bagi atom klorin ialah 17. Antara berikut, susunan elektron yang manakah betul bagi atom klorin?
Number of protons for chlorine atom is 17. Which of the following is the correct electron configuration for chlorine atom?

A. 2.8.7
B. 2.7.8
C. 2.2.5.8
D. 2.2.2.8.1

8. Rajah 2 menunjukkan susunan elektron dalam atom aluminium.
Diagram 2 shows the electron arrangement in aluminium atom.



Rajah 2 / *Diagram 2*

Bagaimanakah atom aluminium boleh mencapai susunan oktet?
How can aluminium atom achieve octet electron arrangement?

A. Menerima lima elektron daripada atom lain / *Accepts five electrons from another atom*
B. Menderma satu elektron kepada atom lain / *Donates one electron to another atom*
C. Menderma tiga elektron kepada atom lain / *Donates three electrons to another atom*
D. Menerima tiga elektron daripada atom lain / *Accepts three electrons from another atom*

9. Rajah 3 menunjukkan nombor proton bagi atom klorin.
Diagram 3 shows proton number for chlorine atom.

Rajah 3 / *Diagram 3*

Berapakah bilangan elektron atom klorin?
What is the number of electrons in chlorine atom?

A. 17
B. 35
C. 18
D. 52

10. Unsur X mempunyai bilangan neutron 8 dan nombor nukleon 16. Berapakah nombor proton bagi unsur X ini?
Element X has neutron number of 8 and nucleon number of 16. What is the proton number for element X?

A. 8
B. 16
C. 24
D. 32

11. Antara berikut, yang manakah merupakan kation?
Which of the following is a cation?

A. Ion klorin / *Chlorine ion*
B. Ion bromin / *Bromine ion*
C. Ion aluminium / *Aluminium ion*
D. Ion florin / *Fluorine ion*

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12. Apakah isotop?
What is isotope?
   A. Unsur-unsur dengan nombor proton sama tetapi nombor elektron berbeza
   Elements with the same number of protons but different number of electrons
   B. Unsur-unsur dengan nombor elektron sama tetapi nombor neutron berbeza
   Elements with the same number of electrons but different number of neutrons
   C. Unsur-unsur dengan nombor neutron sama tetapi nombor elektron berbeza
   Elements with the same number of neutrons but different number of electrons
   D. Unsur-unsur dengan nombor proton sama tetapi nombor neutron berbeza
   Elements with the same number of protons but different number of neutrons

13. Jadual di bawah menunjukkan nombor proton, nombor elektron dan nombor neutron bagi empat unsur iaitu P, Q, R dan S.
Table below shows the number of protons, number of electrons and number of neutrons for four elements which are P, Q, R and S.

Unsur *Element*	Nombor proton	Nombor elektron	Nombor neutron
	Number of protons	*Number of electrons*	*Number of neutrons*
P	8	8	8
Q	9	8	8
R	8	8	9
S	10	9	9

Unsur manakah merupakan pasangan isotop?
Which of the elements are a pair isotope?
   A. P dan Q / *P and Q*
   B. P dan R / *P and R*
   C. Q dan R / *Q and R*
   D. R dan S / *R and S*

14. Rajah 4 menunjukkan nombor proton bagi atom natrium.
Diagram 4 shows proton number for sodium atom.

$^{23}_{11}Na$

Rajah 4 / *Diagram 4*

Berapakah nombor elektron bagi ion natrium?
What is the number of electrons for natrium ion?
   A. 11 C. 10
   B. 12 D. 23

15. Radioisotop yang manakah digunakan untuk mengesan gumpalan darah di dalam salur darah?
Which radioisotope is used to detect blood clots in the artery?
   A. Kobalt-60 / *Cobalt-60*
   B. Natrium-24 / *Sodium-24*
   C. Fosforus-32 / *Phosphorus-32*
   D. Sinar gama / *Gamma ray*

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