U1 L1 HW1
on Session 1,2

1 Choose the correct answer for questions (1) : (8).

(1) What is the subatomic component that has the smallest mass ?

ⓐ Proton. ⓑ Neutron. ⓒ Electron. ⓓ Nucleon.

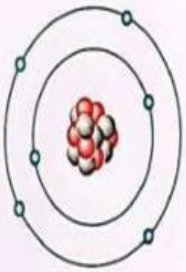
(2) Which of the following subatomic components has a mass of 1 u ?

ⓐ Proton only. ⓑ Electron only.

ⓒ Each of neutron and electron. ⓓ Each of neutron and proton.

(3) The opposite figure shows the structure of the atom (X).

What is the symbol that represents this atom ?



ⓐ $^{13}_{7}X$ ⓑ $^{13}_{6}X$

ⓒ $^{6}_{7}X$ ⓓ $^{7}_{6}X$

(4) Which of the following atoms has number of neutrons equals twice the number of protons in it's nucleus ?

ⓐ $^{1}_{1}H$ ⓑ $^{3}_{1}H$ ⓒ $^{4}_{2}He$ ⓓ $^{7}_{2}He$

(5) The nucleus of potassium atom contains 19 protons, then the electron with the highest energy in this atom is found in the .....

ⓐ first energy level. ⓑ second energy level.

ⓒ third energy level. ⓓ fourth energy level.

LIVEWORKSHEETS

1 Write the scientific term of each of the following statements :

From building units to chemical symbols of elements

(1) Anything that has mass and volume, and occupies space.

(2) The building and structure unit of any matter.

(3) The first scientific theory about the atom.

(4) The first model of the atom based on experimental basis.

(5) A New Zealand physicist who won the Nobel Prize in Chemistry in 1908

(6) Positively charged particles found inside the nucleus of the atom.

(7) A subatomic particle whose charge can be neglected, but its mass cannot be neglected.

(8) Negatively charged particles in the atom with very tiny mass, revolving around the nucleus.

(9) A subatomic particle whose mass equals $\frac{1}{1836}$ u

(10) Chemical compounds that are used to improve agricultural production.

From energy levels to isotopes

(11) Regions where electrons revolve around the nucleus according to their energy.

LIVEWORKSHEETS

Choose the correct answer :

From building units to chemical symbols of elements

(1) Each of the following is matter, except .....

ⓐ air. ⓑ light. ⓒ sand. ⓓ table salt.

(2) Which of the following is a characteristic of the nucleus of an atom ?

ⓐ Positively charged. ⓑ Negatively charged.

ⓒ Contains negatively charged electrons.

ⓓ Contains negatively charged protons.

(3) The mass of a proton equals .....

ⓐ 1 g ⓑ 1 kg ⓒ 1 u ⓓ 1 mg

(4) Which of the following choices expresses the relative charges of the components of the atom?

Choices	Proton	Electron	Neutron
ⓐ	–1	+1	0
ⓑ	0	–1	+1
ⓒ	+1	–1	0
ⓓ	+1	0	–1

(5) The mass of the atom is approximately equal to the sum of masses of .....

ⓐ the electrons and the protons. ⓑ the protons and the nucleons.

ⓒ the neutrons and the electrons. ⓓ the protons and the neutrons.

(6) On comparing the charge of protons to the charge of electrons in an atom of any element, the charge of the protons is .....

ⓐ Greater than the charge of the electrons and of the same type.

ⓑ Greater than the charge of the electrons and of an opposite type.

ⓒ Equal to the charge of the electrons in magnitude and of the same type.

ⓓ Equal to the charge of the electrons in magnitude and of an opposite type.

LIVEWORKSHEETS

(9) Which of the following represents an element and its correct symbol ?

ⓐ Potassium P ⓑ Phosphorus F ⓒ Nitrogen Ni ⓓ Chromium Cr

(10) What are the elements which compose glucose $C_6H_{12}O_6$?

ⓐ Carbon, Helium and Water. ⓑ Carbon, Hydrogen and Oxygen.

ⓒ Calcium, Hydrogen and Oxygen. ⓓ Copper, Hydrogen and Oxygen.

(11) Which two compounds do contain the three essential elements required for plant growth ?

ⓐ $(NH_4)_2SO_4$, $Ca(NO_3)_2$ ⓑ $(NH_4)_3PO_4$, $Ca(NO_3)_2$

ⓒ $(NH_4)_2SO_4$, KNO_3 ⓓ $(NH_4)_3PO_4$, KNO_3

(12) A fertilizer package contains the two compounds $(NH_4)_2SO_4$ and K_2SO_4 What are the elements essential for plant growth in this package?

ⓐ Nitrogen and Hydrogen. ⓑ Sulphur and Oxygen.

ⓒ Potassium and Nitrogen. ⓓ Potassium and Sulphur.

From energy levels to isotopes

(13) The number of electrons that can saturate each energy level in an atom equals .....

ⓐ three times the energy level number.

ⓑ twice the square of the energy level number.

ⓒ twice the energy level number.

ⓓ twice the cube of the energy level number.

(14) In the relation $(2n^2)$, the symbol (n) refers to .....

ⓐ energy level number. ⓑ number of electrons.

ⓒ number of protons. ⓓ element's symbol.

LIVEWORKSHEETS