

Class 9 Science test full course test (unsolved)

Question 1

- (a) What are canal rays?
- (b) If one atom contains one electron and one proton, will it carry any charge or not?
- (c) What do you think would be the observation if the alpha-particles scattering experiment is carried out using a foil of a metal other than gold?

Question 2

- (a) Helium has an atomic mass of u and two protons in its nucleus. How many neutrons does it have?
- (b) If K and L shells of an atom are full, then what would be the total number of electrons in the atom?
- (c) Write the electronic configuration of any one pair of isotopes.

Question 3

- (a) If $Z=3$ what would be the valency of the element? Also name the element.
- (b) '*Atoms of most elements are not able to exist independently.*' Name two elements which exist as independent atoms.
- (c) Name one element which forms diatomic and tetra atomic molecules?
- (d) The chemical formula of oxide of an element 'X' is ' X_2O_5 '. Write the chemical formula of its chloride.
- (e) An element 'X' has mass number 4 and atomic number 2. Find the valency of 'X'.

Question 4

- (a) Hydrogen and oxygen combine in the ratio of 1:8 by mass to form water. What mass of oxygen gas would be required to react completely with 3 gm of hydrogen gas?
- (b) Which postulate of Dalton's theory can explain the law of definite proportions? Aluminium chloride and Sodium sulphide.

Question 5

- (a) Write down the name of compounds represented by $Al_2(SO_4)$ and KNO_3 .
- (b) How many atoms are present in a PO_4^{-3} .
- (c) Calculate the formula unit masses of ZnO and Na_2O .

Question 6

- (a) Calculate the number of particles in 46 gm of Na atom.
- (b) Convert 20 gm of water into mole.
- (c) Give the name of elements present in quick lime and baking powder.
- (d) What is the primary characteristic on which the first division of organisms was made?

Question 7

- (a) On what basis are plants and animals put into different categories.
- (b) Which gas is the major component of the atmosphere of Venus and Mars?
- (c) Name the winds which bring rain in India.
- (d) Large scale deforestation should be stopped. List two reasons to justify this statement.
- (e) Name two factors which are responsible for formation of the soil?

Question 8

- (a) Define biogeochemical cycle?
- (b) Name two bacteria which are responsible for the nitrogen fixation.
- (c) Name two nitrogen compounds obtained by industrial fixation?
- (d) Define biosphere.
- (e) In which kingdom will you place an organism which is single celled, eukaryotic and photosynthetic?
- (f) How are fungi (i) similar and (ii) dissimilar to plants?
- (g) Name a division of plants which can be classified as cryptogame?
- (h) Name mammals that lay eggs?
- (i) Who introduce binomial nomenclature?
- (j) Which protozoan is responsible for sleeping culture in kala-azar?
- (k) Write any two air borne diseases and water borne diseases?

Question 9

- (a) Write any two ways by which AIDS spread? What are the principle treatments of disease?
- (b) Who discovered peptic ulcer? Write the name of its causative agent?
- (c) What is reverberation?
- (d) Give two principle application of reflection of sound waves?

Question 10

- (a) Why sound wave is called longitudinal wave?
- (b) Which wave property determines (i) loudness and (ii) pitch?
- (c) Define average power? Define 1kWh?
- (d) What will be the kinetic energy of body when its mass is made four times and the velocity be doubled? Define Sonar?