Guru Gobind Singh Public School

sector 5, Bokaro Steel City, Jharkhand

Revision assignment for annual examination 2018-19

STD 9

Subject Physics

1. Prove the formula of second equation of motion by graphical method.

2. Define Acceleration and write its SI unit and CGS unit.

3. State Newton's second law of motion and explain it mathematically.

4. What is momentum? Write its SI unit also write its formula.

5 Why some of the leaves may get detached from a tree vigorously shake its branch?

6. State and Explain Newton's law of gravitation.

7(a) Differentiate between mass and weight

(b) Differentiate between g and G.

8. Define Kinetic energy. Also derive its formula.

9. What is power and define the unit of power.

10. What are wavelength, frequency and amplitude of sound wave?

11. What is ultrasound? Write its four applications.

12. Explain the working of human ear with labelled diagram.

Subject: Chemistry

Q1 Sponge is a solid,yet we are able to compress it. Why?

Q2 The number of electrons in the outermost 'L' shell of an atom is 5.

(a) Write its electronic configuration.

(b) What is its valency, explain why?

Q3 CO_2 was taken in an enclosed cylinder and compressed by applying pressure.

(a) Which state of matter will we obtain after the completion of the process?

(b) Name and define the process.

(c) What is the common name of the product obtained in the above process?

Q 4 Differentiate between a true solution and a colloidal solution with respect to Homogeneity, size of the particles and transparency.

Q 5 Give reasons :-

(i) A gas cylinder cannot be half filled

(ii) CO_2 is a gas

Q 6 (a) Write two differences between physical change and chemical change

(b) Mention whether the following changes are physical or chemical:-

(i) Growth of a child (ii) Rusting of an iron article

(c) Define Tyndall effect.

Q 7 (a) How many molecules are present in

(i) 9 gms of water (ii) 17 gms of ammonia

(b) Write the formulae of the following compounds:-

(i)Aluminium sulphate (ii)Calcium carbonate (iii) Mercury(II) oxide (iv) Zinc chloride

Q8 (a) Calculate the mass of 0.5 mole of sulphuric acid (atomic mass of H= 1u,S=32u,O=16u)

(b) Find the number of atoms in 12 gms of carbon .

(c) How many atoms are present in

(i) H_2S molecule (ii) PO_4^{3-} ions

(d) Write the names of elements present in Quick lime and Hydrogen bromide

Q9 (a) Identify solute and solvent in 'tincture of iodine'. Why Tyndall effect is not seen in True solution?

(b) A solution contains 60 gms of sugar in 350 gms of water. Calculate the concentration of the solution in terms of mass by mass percentage .

Q10 (a) Why do helium , neon and argon have a zero valancy ?

(b) An element has 7 valance electrons in its 'M' shell

(i) Find the atomic number of this element and write its valancy

(ii) Write the formula of the compound when this element combines with magnesium.

(c) Draw Bohr's model of the atom of this element.

Q 11 What are the limitations of J.J.Thomson 's model of the atom?

Q 12 A student dissolved common salt in water. Write down four characteristics of the mixture prepared by him .

Q 13 'A' is a mixture of iron fillings and sulphur powder. 'B' is a product obtained by heating the mixture ' A' and crushing it to a fine powder. On bringing a magnet over both 'A' and 'B' . What will happen?

Subject: Biology

1). Name any two greenhouse gases.
2). Name the following:-
i) Tissue that forms the inner lining of the mouth
ii). Tissue that connects muscles to bone in humans.
iii). Tissue that transports food in plants.
iv). Tissue that stores fat in our body.
v). Tissue present in the brain.
3). Discuss with the help of suitable examples three ways in which microorganisms can find entry into human body.
4). Identify the animal group having -
i)Body spiny and radial symmetry.
ii) Bones light and hollow.
iii) Soft bodied animals supported by calcareous shells.
iv) External ear or pinna.
v) Three chambered heart.
5) i) Name the plant tissue found in the husk and also identify the chemical which is responsible for its stiffness.
ii) Give one way in which it differs from parenchymatous cells.
6) Draw the diagram of a Bony fish and write one of its adaptive features.
7) Give two identifying features of phylum to which earthworm belongs.
8) i) Make a neat and labelled sketch of nitrogen cycle in nature.
ii) Describe in brief the role of nitrogen - fixing bacteria and lightning in nitrogen fixation.
9) Name a cell organelle found only in plant cell and mention its various types along with their functions.
10) State reason for the following:-
i) Mitochondrion is known as powerhouse of the cell.
ii) Plastids are able to make their own protein.
iii) Plant cell shrinks when kept in hypertonic solution.
11) An Italian Bee variety ***Apis mellifera*** has been introduced in India for honey production. Write about its merits over the other varieties.
12) Give an example of each:-
i) Asymmetry, Radial symmetry and Bilateral symmetry.
ii) Acoelomate , Pseudocoelomate and Haemocoelomate.
13) Differentiate between:- (Any one point is to be given)
i) Aerenchyma and Chlorenchyma ii) Symptoms and Signs iii) Warm blooded animals and Cold blooded animals. iv) Capture fishery and Culture fishery v) Annelids and Arthropods vi) Acute disease and Chronic disease vii) Bilateral symmetry and Radial symmetry viii) Bony fish and Cartilaginous fish ix) Xylem and Phloem x) Amphibia and Reptilia xi) Micronutrient and Macronutrient xii) Aves and Mammalia
14) i) List the causative organisms for the following diseases :-
a) kala - azar b) sleeping sickness c) acne d) AIDS
ii) Why are antibiotics effective against bacteria?