**Final revision sheet for 1st prep**

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## Complete the following

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1. An object potential energy increases . . . . . . of its weight.
2. The liquid element its molecule is composed of one atom is …………. While that composed of two atoms is . . . . . . . . .
3. Bridges made up of iron are coated in the purpose of protecting them from . . . .
4. In the solar cells the . . . . . . . . . . . energy is converted into . . . . . . . energy.
5. . . . . . Energy is changed into electric energy in the battery.
6. The cockroach belongs to . . . . . while the scorpion belongs to . . . . . . . . .
7. Unit of volume is . . . . . . . and that of mass is . . . . . . .
8. When a body is raised up, the potential energy . . . . . . . .
9. An alloy of . . . . . is used in making jewels while an allow of . . . . . .is used in making heaters coils.
10. Electrons are particles with . . . . . . . charges while protons are particles with . . . . . .charges**.**
11. The kinetic energy of a body depends on . . . . . and . . . . . . .
12. Mechanical energy = . . . . . . . . + . . . . . . . . .
13. Hawks have . . . . beaks while ducks have . . . . . beaks.
14. The front limbs of whale are modified into . . . . . . .
15. Types of adaptation are structural, ………., . . . . . . . . , and . . . . . . . .

**II. Identify each of the following:**

1. Matter.

1. Atomic number.
2. Boiling point.
3. Law of energy conservation.
4. Atom.
5. Density.

## III. Write the scientific term:

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1. The total number of protons and neutrons inside the atom nucleus.(----------------)
2. The simplest form of matter which can’t be decomposed into a simpler one by chemical means.(----------------------)
3. The smallest part of matter which can be existed in a solitary form having the properties of matter.(---------------------)
4. Temperature at which liquid state change into gaseous one.(------------------)
5. Mass of unit volume of a substance.(------------------------)
6. The amount of energy which an electron loses or gains to transfer from an energy level into another one.(----------------------)
7. Mass of unit volume of a substance.(--------------------)
8. It is the temperature at which a substance changes from a solid state into a liquid one.(-------------------------)
9. Ability to do work or cause change.(-----------------------)
10. The ability of some living organisms to stimulate the dominant environmental conditions to be hidden from their enemies or even to capture the preys.

(----------------------------)

1. Imaginary places around the nucleus in which the electrons move according to their energy.(----------------------)
2. The product results from a combination between two or more atoms of different elements with constant ratio.(---------------------)
3. Energy stored in an object due to work done on it.(--------------------)
4. The basic classification unit for living organisms.(----------------------)
5. A modification in behavior, structure or the biological function of living organisms organs become more adjustable with the environmental condition where it lives. (-----------------------)

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## Problems

## a. Calculate the potential energy of an object it’s weight is 10 N placed at 5m height from a ground?

## Kinetic energy of an object its mass is 2kg and moving at a speed of 4 m/s?

1. On determining iron density using a piece of iron of mass 78 gm. The piece is immersed in 100 cm3 of water the water increases up to 110cm3, calculate iron density?
2. In an experiment to determine water density, following results are recorded: mass of an empty glass beaker =56gm, mass of the beaker containing liquid= 156gm., volume of the liquid measured by a graduated cylinder=100cm3, calculate water density?

**B: Make the electronic configuration to each of the following:**

1. – 20Ca

2- 12Mg

3 – 18Ar

4- 17Cl

5-2He

**Choose the correct answer:**

1. . . . . . . is known as the number of protons and neutrons existed in an atom nucleus of an element.

a. mass number. B. density. C. atomic number. D. valence.

1. From animals with internal support . . . . . . . .
2. Spider b. fish. C. snail. D. bee
3. An atom third level is saturated with . . . . . electrons.

a. two. B. eight. C. eighteen. D. thirty two.

1. From myriapods arthropods . . . . . . . . .
2. Spider b. Julius c. scorpion d. ant.

5.Opuntia plant stores water in its. . . . . . .

a. leaves. B. roots. C. stem. D. fruits.

6. . . . . . . . gases don’t react chemically.

a. Inert b. active c. halogen d. hydrogen

7. The heat of the sun is transferring by . . . . . .

a. Conduction b. convection c. radiation

d. conduction and convection

8. silver is symbolized by. . . . . . . .

a. Hg. B. Au c. Cu d. Ag

9. The number of energy levels in the largest known atom is . . . . . . .

a. 9 b. 7 c. 5 d. 8

10. from myriapods arthropods . . . . . . . . . . .

a. spider b. Julius d. scorpion d. mosquito

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## Give reasons for:

1. Cooking pots are made up of aluminum whereas their hand grip are made up of wood or plastic.
2. Atom is electrically neutral.
3. An iron nail sinks while one kilogram of cork floats.
4. Camel limbs ends in a flat thick pad.
5. Camel is called the desert ship.

**put ( √ ) or ( X ) and correct the wrong one:**

1. Density of matter = mass x volume.
2. Intermolecular forces are weak in solid state of matter.
3. Liquid substance has definite shape and volume.
4. In winter frogs hide in burrows and that is called aestivation.
5. Mercury is from solid metals.
6. Sodium element is symbolized by S.
7. Wood and plastic are from poor conductors of heat.
8. Ant is from insects.
9. Cold air rises up while got air fall down.
10. Roots of desert plants extend near the surface of the soil or depths the soil.