

Unit 1 test

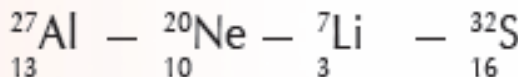
1) Write the scientific terms for each of the following statements:

1. Smallest particle of the matter which can be freely existed and has the characteristics of its substance.
2. Temperature at which solid substance starts to change into liquid.
3. A smallest particle can share in chemical reactions.
4. Illusionary places in which electrons can move according to their energy.
5. The simplest state of matter which can not be decomposed into a simpler one.

2) Give reasons for each the following:

1. It is difficult to bend an iron rod.
.....
2. Some table salt disappears after a while when added to water without stirring.
.....
3. Atom is electrically neutral.
.....
4. Substances have different chemical properties.
.....
5. Inert gases can not share chemical reactions in ordinary conditions.
.....

3)A. Write down the electron configuration of the following atoms:



Then determine each of:

Atomic number – number of neutrons – mass number – number of electrons.

.....
.....
.....
.....

B. Write the symbols of the following elements:

Sodium – Potassium – Chlorine – Nitrogen – Calcium – Aluminum – Phosphorous.

.....

C. Your father bought a spare part of a car, made of iron, suggest some ways to protect this part from rust.

.....

Unit 2 test

1) Choose the correct answer from the following:

1. In the filament of electric lamp the
 - A. Electric energy is converted into mechanical energy.
 - B. Light energy is converted into heat energy.
 - C. Electric energy is converted into heat energy.
 - D. Chemical energy is converted into light energy.
2. As an object falls downwards
 - A. The potential energy increases.
 - B. The kinetic energy increases.
 - C. The mechanical energy is lost.
 - D. The speed of the object decreases.
3. As an object is launched upwards,
 - A. Its speed decreases.
 - B. Its speed increases.
 - C. Its kinetic energy increases gradually.
 - D. Its potential energy decreases gradually.
4. Heat is transferred through solids by
 - A. Conduction and convection.
 - B. Radiation only.
 - C. Radiation and convection.
 - D. Conduction only.
5. Mechanical energy is converted into heat energy by
 - A. Combustion.
 - B. Friction.
 - C. Chemical reaction.
 - D. Electric current.

2) Give reasons for each the following:

- a. The freezer is found at the top of fridge.
.....
- b. Nuclear stations which produce electricity are preferred to those of petrol stations.
.....
- c. Fuel in a car as food for a man.
.....

3) Problems:

A) a stone of 5 Kg mass falls from 8 m height, what is its potential energy? And what is its kinetic energy? In which of the following:

- a. At the start of falling.
- b. At height 2m.
- c. On reaching ground (consider gravity acceleration = 10 m/s^2).

.....
.....

B) find the weight of an object of potential energy 88 Joule when found at a height 11 m.

.....

C) An object has a kinetic energy 46 Joule and is moving at a speed 4 m/s. Find the object mass.

.....

Unit 3 test

1- Complete the following:

- a- and are examples for micro organisms that live in water.
- b- The number of jerboa's upper jaw incisors is and their number in the rabbit's upper jaw is.....
- c- Armadillo belong to..... mammals and the hedgehog belongs to mammals.
- d- Camel's blood temperature changes from °C in early morning into °C during daylight hours.
- e- is from the plants that reproduce by the formation of spores whereas is from the plants that produce seeds inside cones.

2- Choose the correct answer:

- a- The number of the anterior fingers in a hawk is (3 - 4 - 2 - 1 finger).
- b- belongs to the animals with no body support.
(Octopus - Mussel - Hedgehog - Snake).
- c- Camel can survive without drinking water for
(3 days - 3 weeks - 3 months - a week or more).
- d- Pea plant belongs to plants. (fern - monocotyledon - dicotyledon - gymnosperm).
- e- is from the rodents that undergo aestivation.
(Rat - squirrel - Jerboa - Desert snail).

3- Give one difference between each of the following:

- a- Insects and arachnids.....
- b- Rodents and lagomorphs.....
- c- Beans plant and maize plant.....

4- Give reasons for:

- a- The individuals of the same species differ in some external characteristics.
.....
- b- Camel is considered as a desert ship.
.....

5- Give an example to show the adaptation of the following living organisms with the environmental conditions:

- a- Duck. b- Heron.
.....
- c- Hedgehog. d- Dionea plant
.....

First term test

1- Complete the following sentences:

- a- Electric wires are made up of or
- b- An object potential energy increases of its weight.
- c- If the speed of an object motion increases into the double, its kinetic energy increases into.....
- d- Bridges made up of iron are coated in the purpose of protecting them from.....
- e- The cockroach belongs to whereas the scorpion belongs to and they are classified as animals.
- f- When you examine a pond water drop by a microscope, some micro-organisms can be seen such as and
- g- energy is changed into electric energy in the battery.
- h- Sodium symbol is whereas sulfur symbol is

2- Choose the correct answer to complete the following sentences:

- a- Cycas belongs to..... (brown algae, mosses, mollusks, gymnosperms)
- b- is known as the number of protons and neutrons existed in an atom nucleus of an element. (Mass No. , Density, Atomic No. , Valence)
- c- In rodents, the incisors numbers in the lower jaw are.....
(one pair, two pairs , three pairs , none)
- d- An atom third level is saturated with electrons.
(two, eight, eighteen , thirty two)
- e- An object potential energy is zero when the object is at the.....
(maximum height, earth's surface, when the object mass increases, when the object speed increases.)
- f- Opuntia plant stores water in its (leaves, roots, stem, fruits)
- g- The atom nucleus contains..... (Protons and neutrons, protons and electrons, neutrons and electrons, protons, neutrons and electrons)
- h- The leaves of the aquatic submerged plants are.....
(neckless and small, necked and long, large - sized , necked and small)

3- Give reasons for:

- a- The bike tire gets hot once you press the brakes.
- b- It's favorable to produce electricity from solar energy than fuel burning.
- c- The atom is electrically neutral.
- d- The two forelimbs in the dolphin are different from the bat's ones although they are structured with similar bones.
- e- A camel hump is considered a feature of its adaptation for survival in desert.
- f- Cooking pots are made up of aluminum whereas their hand grips are made up of wood or plastic.