Science 1st prep.

Last Look

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Write the scientific term:

1-Invertebrates animals characterized by having jointed legs

2-Particles their mass can be neglected but their charges can be be neglected.

3-The ability to do work.

4-Everything has a mass and volume.

5-Organisms that cannot be seen by naked eye.

6-The transfer of heat through solid objects from the part to another.

7-The work done during the motion of the object.

8-The difference between the mass and atomic number.

9-The mass of 1 cm3 of a substance.

10-The building unit of the living organism.

11-A bird migrates from the cold regions during winter.

12-Plants their seeds are formed inside the cones.

13-A living organism similar to the elephant extinct long time ago.

14-The temperature at which matter converts from solid state to liquid state.

15-A state of matter where the binding forces are very great.

16-A material property responsible for floating or sinking.

17-The sum of potential energy and the kinetic energy of any object.

18-Animals have three pairs of jointed legs.

19-A device used to measure the volume of the liquids.

20-Composed of different atoms bind together.

21-The energy stored inside a body when a work is done on it.

22-The transition of temperature through gases and liquids.

23-Animals with four pairs of jointed legs.

24-Particles have negligible mass and but have charges.

25-Animals of non supported bodies.

26-A desert plant its leaves modified to the thorns.

27-Materials need heating to be soft.

28-A form of energy that transfers from the higher temperature body to the lower temperature body.

29-Composed of similar atoms linked together.

30-The work done during the motion of an object.

31-A device used to convert mechanical energy into electric energy.

32-The atom at which the atomic number equals the mass number.

33-Energy neither be created nor destroyed but change from one form to another.

34-A living organism loses 25% of its weight when in the absence of water and food.

35-The energy level that saturated with 2 electrons.

36-The temperature at which matter changes from liquid state to gaseous state.

37-The spaces among the molecules of a substance.

38-The state of body, which determines the transfer of heat from or to it when it touches an object.

39-Device used to convert light energy directly into electric energy.

40-The mass of unit volume of a substance.

41-An alloy used in making gold objects.

42-An alloy used in the manufacture of heating coils.

43-The smallest part of matter which can exist in a free state and keep the properties of matter.

44-The spaces that found among the molecules of matter.

45-The simplest pure form of matter which cannot be analyzed into simpler form.

46-The combination of two or more different elements.

47-The number of positively protons in the nucleus.

48-The amount of energy lost or gained when an electron transfers from one energy level to another.

49-negatively charged particles of negligible mass that revolve around the nucleus.

50-A set of similar animals in their shape and can produce fertile individuals.

51-The ability of some living organisms to simulate the dominant environmental conditions.

52- Energy needed to transfer an electron from an energy level to another.

Write the chemical symbol for the following elements:

Potassium – Sodium – Magnesium – Carbon – Oxygen – Neon – Nitrogen –

Sulphur – Hydrogen – Aluminum – Lithium – Silicon – Helium – Phosphorous –

Fluorine – Chlorine – Argon – Copper – Calcium – Iron – Lead – gold – silver.

What is meant by the density of aluminium 2.7 g/cm3?

Choose the correct answer:

1. The number of the anterior fingers in a hawk is..... (3 - 4 - 2 - 1 finger).

2-..... Belongs to the animals with no body support.
(Octopus - Mussel - Hedgehog - Snake).

3. Camel can survive without drinking water for ……..
(3 days - 3 weeks - 3 months - a week or more).

4. Pea plant belongs to ..... plants.
(Fern - monocotyledon - dicotyledon - gymnosperm).

5. …. is from the rodents that undergo aestivation.
(Rat - squirrel - Jerboa - Desert snail).

6-The color property is a distinguishing factor between:
(Table salt and flour-iron and gold-oxygen and nitrogen-oxygen and carbon dioxide)

7- Cycas belongs to..... (Brown algae- mosses – mollusks – gymnosperms)

8- ..... is known as the number of protons and neutrons existed in an atom nucleus of an element. (Mass number- Density - Atomic number- Valence)

9- In rodents, the incisors number in the lower jaw is.....
(One pair-two pairs-three pairs- none)

10-An atom third level is saturated with..... electrons.
(Two- eight-eighteen-thirty two)

11-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)

12-Opuntia plant stores water in it's..... (Leaves- roots-stem-fruits)

13-The atom nucleus contains..... (Protons and neutrons-protons and electrons-neutrons and electrons-protons, neutrons and electrons)

14-The leaves of the aquatic submerged plants are.....
(neckless and small-necked and long- large – sized- necked and small)

15- ……. is an example for plants that reproduce by spores:

(Pine - beans - vougheir - wheat).

Complete the following statement:

1- Electric wires are made up of ..... or.....

2- If the speed of an object motion increases into the double, it's kinetic energy increases into.....

3- Bridges made up of iron are coated in the purpose of protecting them from .....

4-The coockroach belongs to ..... whereas the scorpion belongs to ..... And they are classified as ..... animals.

5- When you examine a pond water drop by a microscope, some microorganisms can be seen such as ..... and .....

6-..... energy is changed into electric energy in the battery.

7-The electrons revolve around the nucleus of the atom in ..… According to ……

8- …….and ……. are teethless mammals.

9- Arthropods can be classified according to the number of legs into ……., ……. and ……..

10- Some plants have large - sized leaves such as ……. and some has small - sized leaves such as ……..

11- ……. is the basic unit of classification in living organisms.

12- The liquid element which is composed of one atom is ……. while that composed of two atoms is ……..

13- The …. Takes the shape of the container but, ……. has no definite shape.

4. The hydrogen molecule is consisted of ……. while the argon molecule (inert gas) is consisted of …….

Give reasons:

1. The bike tire gets hot once you press the brakes.

2. it's favorable to produce electricity from solar energy than fuel burning.

3. The atom is electrically neutral.

4. The two forelimbs in the dolphin are different from the bat's ones

although they are structured with similar bones.

5. A camel hump is considered a feature of its adaptation for survival in desert.

6. Cooking pots are made up of aluminum whereas their hand grips are

made up of wood or plastic.

7. Hedgehog has front teeth extending outwards.

8. When a zebra mates a donkey, they can't produce fertile Individuals

9. Equal volumes of different materials have different masses.

10. Some animals hibernate in winter.

11. Fuel in a car as food for a man.

12. Nuclear stations which produce electricity are preferred to those of petrol stations.

13. Ecologists do not appreciate all the technological applications which used in energy transformations.

14. Water is not used to extinguishing oil fires.

15. The mass number is greater than the atomic number.

16. The equation 2 n2 is not applied on levels higher than the 4th level.

17. The electrons are distributed to fill the K level before filling the L level.

18. The volume of a mixture of water with alcohol is less than the sum

of their volumes before being mixed together.

19. Camel is called the desert ship.

Give one difference between each of the following:

1. Insects and arachnids.
2. Rodents and lagomorphs.
3. Beans plant and maize plant.
4. Hoopoe and geese.
5. Solids, liquids and gases
5. Opuntia and calamagrostis.

Write down the formula by which you can find each of the following:

Density – the number of electrons saturates the energy level of an atom – Potential energy – Kinetic energy – work.

Write down the electron configuration of the following atoms

Then calculate number of protns, electrons and neutrons:

27Al

13

20Ne

10

$^{27}_{13}Al$

$^{20}_{10}Ne$

$^{7}_{3}Li$

Problems:

1- on determining iron density using a piece of iron of mass 87 g. The piece is immersed in 100 cm3 of water, the water increases up to 110 cm3 .Calculate iron density.

2- A stone of 5 Kg mass falls from 8 m height, what is its potential energy? And what is its kinetic energy? (At the start of falling-At height 2m-On reaching ground (consider gravity acceleration = 10 m/ s2).

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

4- Find the weight of an object of potential energy 88 Joule when found at a height 11 m.

Best wishes 4 all

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