Assignment , Class – VI

Chapter – 9 , The Living Organisms And Their Surroundings

1. Name the process by which living organism obtain energy from food.
   The process by which living organism obtain energy from food is respiration.
2. Name two plants which can be produced from cuttings.
   Plants which can be produced from cuttings are Rose and Sugarcane.
3. Which gases are exchanged in our lungs?
   Oxygen and carbon dioxide are exchanged in our lungs.
4. Name one plant whose flowers open up in the morning but close at night.
   Flowers of Dandelion open up in the morning but close at night.
5. What do you understand by the term life span of a living thing?
   The time period for which a living thing remains alive is called its life- span. For ex. The average life – span of a tortoise is more than 100 years.
6. Which of the two occurs over a short period of time : Acclimatisation or Adaptation?
   Acclimatisation occurs over a short period of time.
7. Name the most common adaptation found in all animals living in cold places like mountains.
   The most common adaptation found in all animals living in cold places like mountains is that they have thick skin or fur to protect them from cold environment.
8. What is the unique feature of long claws in the front legs of a lion?
   The lion can withdraw (pull in) the claws inside the toes so that they do not become worn out and blunt when it walks.
9. What is the main function of roots in aquatic plants?
   The main function of roots in aquatic plants is to hold the plant in place.
10. Write the names of two sea- animals which have gills for respiration.
    Fish and Octopus have gills for respiration.
11. Name two aquatic plants which are partly submergred in water.
    Aquatic plants which are partly submergred in water are Lily and Lotus.
12. Name the biotic components of a habitat.
    Plants , Animals and Micro-organisms are the biotic components of a habitat.
13. Name one characteristic which identify seeds as living beings.
    Seeds respire so, it can be identified as living beings.
14. Write the most common characteristics of plants found in desert.
    The desert plants have reduced leaves and thick fleshy stem.
15. State an example of animals showing response to a stimuli.
    On sudden appearance of bright lights animals run-off like cats and rats.
16. Write the names of two sea- animals which have nostrils for respiration.
    Whales and Dolphins have nostrils for respiration.

17. A habitat is said to have two supporting components. What are they?
    Two supporting components of a habitat are:-
    a. Living component which is called as biotic component. For ex. Plants and animals
    b. Non- living component which is called as abiotic component . For ex. Air and water.
18. Why is reproduction important for organisms?
    Reproduction is important for organisms as it leads to the production of more individuals of an organisms of its own kind. This helps in continuity of life on the earth.
19. Mention two ways by which animals cope with low temperature.
    Animals living in colder areas have hairy skin to warm their bodies and they have thick layer of fat under their skin.
20. Aquatic plants undergo some modifications to adapt to this habitat. List any two of those.
    Adaptations of aquatic plants are:-
    a. The roots of these plants are small just to keep plant in space.
    b. Stems are hollow with large spaces which help in floating.
21. Plants are called living beings. Mention any two characteristics that support this classification.
    Plants are called living being because:-
    a. They carry out respiration process.
    b. They respond to stimulus.
22. Like many animals although a car also moves , it is not considered as a living organism. Give any two reasons.
    A moving car is not considered as a living organism because:-
    a. A car moves by the burning of fuels like diesel and petrol.
    b. A car does not show any other living characteristics like respiration , digestion etc.
23. Why do Lions have very high agility?
    As a predator Lion have to hunt for food which is not easy as prey like deer are very fast. Thus , they have high agility.
24. Some animals cannot cope in low temperature habitat. What happens to them.
    Animals unable to cope in low temperature habitat , go to sleep to prevent extreme cold and food storage, this is known as hibernation.
25. Why do desert snakes burrow deep into the sand during the day?
    Desert snakes burrow deep into the sand during the day time because the deeper layer of Sand are cooler which allow them to stay away from heat of the desert that persists through the day time.
26. Animals like mountain goat and snow leopard do not slip or fall. Why?
    Animals like mountain goat and snow leopard do not slip or fall because these animals have big and padded feet and strong hooves to spread their weight preventing slip or fall.
27. By what mechanism , desert animals are able to prevent the loss of water from their body?
    The desert animals hide themselves in the day and they become active during the night. This way they do not lose much water. Such animals are called nocturnal animals. For ex. desert rats and snake.
28. List the types of movements seen in plants.
    Movements seen in plants are:-

a. Opening and closing of flowers.
b. Growth of stem and leaves.
c. Growth of stem and twigs towards light
d. Growth of roots towards soil and water.

29. List some characters which make birds the flying.
Some characters which make birds the flying are :-
a. The birds have hollow bones (Light Weight)
b. Their forelimbs are modified into wings.
c. They have sharp eye-sight.
d. Their joints are completely fused.

30. What are the specific features present in a deer that help it to detect the presence of predators like lion?
Specific features present in a deer that help it to detect the presence of predators like lion are:-
a. Long ears to hear movement of predators.
b. Eyes on the sides of its head which allow it to look in all directions.

31. Explain why many mountain trees are cone- shaped having sloping branches.
Many mountain trees are cone- shaped having sloping branches because this shape of the mountain trees makes the rainwater and snow slide off easily without damaging the branches and leaves.

32. Differentiate between excretion and secretion in plants and animals.
Excretion - The removal of waste substances from the body of a living being is called excretion.
Ex. – Formation of urine excrete urea from the animals , body.
Secretion – The process of removal of wastes in plants is referred to as secretion. For Ex. – Latex , Resin and gum are waste for the plants but useful for us.

33. The presence of needle-like leaves on trees growing in extreme cold helps them to survive the cold conditions. Explain.
Many mountain trees have small , needle-like leaves due to which these leaves loose very little water in windy conditions. This helps the mountain trees to survive in winter when all the soil water is frozen in the form of ice and not available to their roots.
The needle like leaves have a thick waxy layer (cuticle) to reduce the loss of water through transpiration and to protect them from damage by rain and snow.

40. List the important characteristics of living things which differentiate them from non- living things.

Living things :-

a. Living things can grow.

b. They can move on their own.

c. They can reproduce.

d. They respire , needs food for energy.

e. They have different life span.

f. Living things are made up of cells.

Nonliving things :-

a. Nonliving things do not grow.

b. They cannot move on their own.

c. They cannot reproduce.

d. They do not respire , do not need food .

e. They might exist forever.

f. They do not have cell- like structures.

41. Write down the adaptive features of a plant for a aquatic habitat.

The adaptive features of a plant for a aquatic habitat are :-

a. The stem of these plants are long , hollow and light.

b. Roots are must reduced in size and their main function is to hold the plant in place.

c. Plants have narrow and thin ribbon- like leaves . In some submerged plants , leaves are often highly divided , through which water can easily flow without damaging them.

42. Write down the adaptive features of a frog as an amphibian.

Frogs usually have ponds as their habitat. Frog can stay both inside the pond water as well as move on land.

a. They have strong back legs that help them in leaping and catching their prey.

b. They have webbed feet which help them swim in water.

43. Camels live in desert habitat. How do they adapt to such harsh climate?

Adaptive features which help camel to survive in desert habitat are:-

a. Camels have long legs which help to keep their bodies away from the heat of the sand.

b. They excrete small amount of urine , their dung is dry and they do not sweat.
c. Camel can live for many days without water.
d. Camels has a hump and padded feet.

44. How are fish adapted to survive in water?
Adaptive features of fish are:-
a. Fish have slippery scales on their bodies . These scales protect the fish and also help in easy movement through water.
b. Fish have flat fins and tails that help them to change directions and keep their body balance in water.
c. Fish have streamlined body . This shape help them move inside water.
d. Gills present in the fish help them to use oxygen dissolved in water.
45. Do plants also excrete? If yes, how?
Yes , plants also excrete. However , the mechanism in plants are a little different. Some harmful or poisonous materials do get produced in plants as wastes. Some plants store the waste products within their parts in a way that they do not harm the plant as a whole. Some plants remove waste products as secretions.

Assignment , Class – VI

Chapter – 10, Motion and Measurement of Distances

1. Mention the two contributions in 20^{th} century towards transportation.

The two contributions in 20^{th} century towards transportation is electric trains and supersonic aeroplanes.

2. Name one process of ancient times which is used to measure the length.

Handspan is a process of ancient times which is used to measure the length

3. Name the motion exhibited by a freely falling stone.

The motion exhibited by a freely falling stone is rectilinear motion.

4. State an example of a rotational motion.

An example of a rotational motion is the motion of earth about its axis.

5. Explain the term non-periodic motion.

Non-periodic motion is a motion which does not repeat in equal intervals of time.

6. Mention some modes of transportation of ancient times.

Some modes of transportation of ancient times are bullock cart , horse cart , camel cart etc.

7. Mention the name of universally accepted system of measurement.

Universally accepted system of measurement is System of International Units (SI units)

8. During rolling of a ball , which type of motion is performed?

Rotational and rectilinear motion are performed during the rolling of a ball.

9. State how many kilometres are there in 1metre.

There are 1/1000 kilometre in 1 metre.

10. State how many centimetres are there in 1metre.

There are 100 centimetre in 1 metre.

2 Marks Questions:-

11. State one difference between circular motion and rotational motion.

A body always rotates in its orbit in the case of circular motion while in the case of rotational motion , a body rotates about its axis.

12. Can an object be in motion and rest simultaneously for different observers? Give an example and consequence.

Yes , an object be in motion and rest simultaneously for different observers. A person driving a car is in rest with respected to the other person in car but in motion with respect to a person standing roadside. State of motion and rest depends upon observer or reference point.

13. We need standard unit of measurements for a quantity. Explain why?

We need standard unit of measurements for a quantity because the units like handspan , foot , cubit differ from person to person . So for a uniform measurement , standard unit of measurement is really required.

14. Briefly explain the type of motion performed by the earth.

The earth performs two types of motion. One of the motion is when it moves around the sun, then it is said to possess circular motion and on the other hand , it also rotates about its own axis called rotational motion.

15. Explain how will you decide whether an object is in motion or at rest.

An object is said to be at rest when it does not change its position with time.

if an object changes its position with respect to time , it is said to be in motion.

16. Give one example to each of the following type of motion.

a. Rectilinear

b. Circular

c. Periodic

a. Rectilinear Motion – Vehicles on a straight road

b. Circular Motion – Motion of the planets around the sun.

c. Periodic Motion – Hour hand of a wall clock.

17. While travelling in a train , it appears that the trees near the track are moving whereas co-passengers appear to be stationary. Explain the reason.

While travelling , trees near the track seem to be moving back (i.e. opposite to the direction of motion of a train) because there is a relative motion between outside trees and moving train. While in case

of co- passengers , the relative motion between we and co-passengers , is zero, so it appears to be stationary.

18. How are the motions of a wheel of a moving bicycle and a mark on a blade of a moving electric fan different ? Explain.

Motions of a wheel of a moving bicycle –

a. The motion is rotational and circular both.

b. It changes position while doing circular motion.

c. It can execute rectilinear motion.

d. It can cover some distances in any time interval.

Blade of a moving electric fan-

a. The motion is circular .

b. It cannot change its position .

c. It cannot execute rectilinear motion.

d. It cannot cover any distance.

19. Enlist any three precautions which should be taken during measurement by a metre scale.

a. Place the scale in contact with the object along its length.

b. In case of broken end of metre scale we should avoid taking measurement from the zero mark of the scale. We can use any other full mark of the scale.

c. Our eyes must be exactly in front of the point where the measurement is to be taken.

20. It is not accurate to measure a length with elastic tapes. Explain why.

Elastic tapes are stretchable due to which their length can be increased during the measurement if it is not handle with care . Therefore , the measurement done by elastic tapes may be greater than the actual length of the object, So, we can say that elastic tapes are not accurate to measure a length.

21. How can we measure the length of a curved line ?

We can measure the length of a curved line with a thread.

22. What do you mean by measurement and unit?

Measuring something means to compare unknown physical quantity with known quantity having fixed value and of same kind. The known fixed quantity is called a unit.

23. What are the basic SI units?

There are seven base units in the SI system.

a. the kilogram (kg) , for mass.

b. the second (s) , for time.

c. the Kelvin (K) , for temperature.

d. the ampere (A) , for electric current.

e. the meter (m), for length.

f. the Mole (mol) , for amount of substance.

g. the Candela (cd) for luminous intensity.

24. What is motion? How many types of motion are? Explain with examples.

Motion – When a body or an object changes its position with respect to time , then it is said to be in motion.

Different objects show different types of motion. Some of the important types of motions are :-

a. Rectilinear Motion – A body is said to be possessed rectilinear motion , if it moves in a straight path, without changing its direction of motion. For ex. – march-past of soldiers.

b. Circular Motion - A body is said to be possessed circular motion , if it moves around a fixed point making equal distance from that point . For ex. – motion of ceiling fan.

c. Periodic motion- The motion which repeat itself after a regular interval of time is known as periodic motion. Forv ex. – the motion of hands of a clock.

25. The height of a person is 2.74 m. Express it into cm and mm.

The height of a person = 2.74 m

1 m = 100 cm.

1m. = 1000 mm.

a. The height of a person in cm.

= 2.74 x 100 = 274 cm.

b. The height of a person in mm.

= 2.74 x 1000 = 2740 mm.

Assignment , Class – VI

Chapter – 11, Light , Shadows and Reflections

1. Which form of energy enables us to see the things around us?
Light is a form of energy enables us to see the things around us.
2. Through which pipe , we can see the candle, straight pipe or curved pipe?
we can see the candle through straight pipe .
3. Shadow of flying aeroplane cannot be seen on the earth. Explain why.
Shadow of flying aeroplane cannot be seen on the earth because umbra region cannot able to reach the earth.
4. Do you observe your shadow in a dark room or at night when there is no light?
No, we cannot observe any shadow without any source of light.
5. Briefly state that what a dark part of shadow is called as .
Limbra is called the da.rk part of shadow
6. If an object is of two different colours , then what will be the colour of shadow?
If an object is of two different colours , then the colour of shadow will be black.
7. Mention the type of image is formed in pinhole camera.
Inverted and real image is formed in pinhole camera.
8. In respect to the direction of source of light , what is the direction of shadow?
In respect to the direction of source of light , the direction of shadow is always opposite to it.
9. Mention the name of an object which partially allows the light to pass through it.
The object which partially allows the light to pass through it is a translucent object, e.g. wax paper.
10. What type of objects a chair , a painting and a shoe are?
A chair , a painting and a shoe are opaque objects because we cannot see through them.
11. State two conditions in order to observe a shadow.
The two conditions in order to observe a shadow are:-
a. A source of light
b. An opaque object.
12. In a complete dark room , we are not able to see our face. Why?
To see a thing , there must be light which comes after reflection from the object to our eyes . In dark room there is no light , so we are not able to see our face.
13. As we know that moon appears to be bright at night. Does it mean that it is an luminous object?
Moon doesn't produce its own light , the brightness of moon is due to the light of sun. So , it is not a luminous object.
14. Give the name of two instruments which show that light travels in a straight line.
Pinhole camera and periscope are the two instruments which show that light travels in a straight line .
15. State some properties of light.
Some properties of light are :-

a. Light is a form of energy.
b. It travels in a straight line.

16. Name the things that required to see a shadow.
a. A screen like wall and ground.
b. Source of light.
c. Opaque object.

17. Differentiate between a shadow and an image.
Shadow – The dark patch of light is known as shadow which is formed when there is opaque object in the path of light.
Image – An image is the reflection of light. By seeing image we can identify the object but shadow can mislead you from actual object.
18. Explain the reason of using a silver glass as a mirror.
Silver glass surface is very smooth and shiny as well. This type of surface helps in forming the clear image.
19. Differentiate between luminous and non- luminous objects.
Luminous objects - Luminous objects are those objects which emit the light of their own e.g. the stars , the sun , burning candle etc.
Non – Luminous objects ----- Non – Luminous objects are those objects which do not emit the light of their own e.g. the moon , Wood etc.
20. How can we see an image of an object behind wall.
we see an image of an object behind wall by using a periscope with the help of plane mirror by reflection of light.
21. . Differentiate between various types of objects on the basis of transparency.
On the basis of transparency objects can be divided into three categories :
a. Transparent objects
b. translucent objects
c. Opaque objects

a. Transparent objects – Transparent objects are those objects that allow the light to pass through them completely. So, the object being transparent is easily and clearly visible. e.g. glass , water, air.
b. Translucent objects - – Translucent objects are those objects that allow the light to pass through them but partially. So, the object being translucent is not clearly visible. e.g. coloured glass , wax paper.

c. Opaque objects - – Opaque objects are those objects that do not allow the light to pass through them . We can't see anything through an opaque object. For ex. cardboard , book

22. Enlist some important features of shadow.

some important features of shadow are:-

a. Shadow of an object is formed on the opposite of light source.

b. When we change the position of light , the position of shadow also changed.

c. As the object will move , then its shadow will also get changed with it.

23. .Differentiate between umbra and penumbra.

If the source of light is wide such as sun , The shadow are of two types- umbra and penumbra.

Umbra – The darker part of the shadow which occurs always at centre , is known as umbra.

Penumbra – Penumbra is the partially darked part of shadow which surrounds umbra.

24. Give an example of natural pinhole camera.

An example of natural pinhole camera is the small holes formed by a large number of leaves under the tree.

The gaps between the leaves act as a pinholes. These gaps are all kinds of irregular shapes but we can see circular images of the sun.

25. Through an activity show that light always travels in a straight line.

Firstly take a piece of pipe and fix a candle on a table. Light the candle and observe it from the pipe. We will observe the lighting candle. Now bend the pipe a little when we are looking at the candle. We will observe that the lighting candle is not visible.

From this activity we can conclude that light always travels in a straight line.