COMPETENCY BASED QUESTIONS

Class- SIXTH

SCIENCE

Ch-1 Food: Where does it come from?

1. To prepare steamed rice, we must take
   (a) wheat flour and water
   (b) raw rice and water
   (c) egg and water
   (d) all of these

2. Composition of milk is
   (a) fat, lactose, protein and mineral
   (b) fat, mineral, protein and vitamin
   (c) fat, protein and carbohydrate
   (d) fat, cellulose and carbohydrate

3. We get cereals (wheat, rice, maize, etc.) from:
   (a) animals
   (b) plants
   (c) (a) & (b) both
   (d) none of these

4. Animal products are rich in
   (a) proteins
   (b) calcium
   (c) minerals
   (d) carbohydrates

5. Herbivores: Plant products:: …….. : flesh of other animals
   (a) Omnivores
   (b) Carnivores
   (c) plants eating
   (d) none

6. Stem: sugarcane :: ……..sweet potato
   (a) Root
   (b) leaves
   (c) fruit
   (d) stem

7. The green plants make their own food by the process A by combining water (and nutrients like nitrogen), carbon dioxide gas and energy

(a) What is the name of process A?
(b) From where do the green plants get carbon dioxide for making food?
(c) From where do the green plants get energy for making food?
(d) What name is given to the green plants which make their own food?

8. Food material X is a syrup-like, thick and sweet liquid which is made by a kind of insects by collecting nectar from flowers. On other hand food material Y is a thin liquid which can be converted into yogurt.
(a) What do you think is food X?
(b) Name the insects which make food X.
(c) Name food Y
(d) Name two animals which provide us food Y.

Answers:

1) Raw rice and water
2) Sugar Cane
3) Fat, lactose, protein and mineral
4) Plants
5) Carnivore
6) Root
7) (a) photosynthesis (b) From air (c) From sunlight (d) Producers
8) (a) Honey (b) Honey bees (c) Milk (d) Cow and Goat

Ch-2 Components of Food

1. Carbohydrates are found in
   (a) rice
   (b) carrot
   (c) lemon
   (d) pulses

2. Composition of fats are
   (a) carbon, sulphur and hydrogen
   (b) carbon, sulphur and nitrogen
   (c) oxygen, nitrogen and hydrogen
   (d) carbon, hydrogen and oxygen

3. Which of the following are 'energy-giving foods?
   (a) Fats
   (b) Carbohydrates
   (c) Both (a) & (b)
   (d) None of these

4. Ghee and butter are also called as
   (a) vegetable fat
   (b) animal fat
   (c) mixed fat
   (d) natural fat

5. Protein helps us in
   (a) body building
   (b) making skin soft
   (c) building immunity
   (d) none of these

6. Which carbohydrate is present in sugar cane?
   (a) Simple carbohydrate
   (b) Complex carbohydrate
   (c) Both (a) & (b)
   (d) None of these

7. Kopal wonders, why her gums are swelling and bleeding and how to overcome this problem. The reason may be

   a) Not brushing her teeth
   b) Eating spicy food
   c) Suffering from scurvy
   d) None of these

8. Aman observed , Rohit eats everything like, boiled eggs, idle, dal rice, chicken curry and chapatti, but his cow is so big, but eats only plant products, why is it so?

a) Rohit is careless about food
b) Cow is an Animal
c) There is no reason about it
d) Rohit is omnivore and cow is herbivore

9. Read the following three statements carefully and choose the correct option.
   Statement (i) : Raw vegetables are rich in roughages.
   Statement (ii) : Cooking makes food free of germs
   Statement (iii) : Overeating makes the body more strong to fight with diseases.
   a) Statement (i) and (iii) are correct but (ii) is incorrect.
   b) Statement (i) and (ii) are correct but (iii) is incorrect.
   c) All statements are correct.
   d) All statements are incorrect.

10. Assertion (A): Growing children needs more protein in their diet.

    Reason (R): Lack of protein in children's diet weakens their muscles.

    a) Both A and R are true and R is the correct explanation of A.
    b) Both A and R are true but R is not the correct explanation of A
    c) A is true but R is false
    d) A is false but R is true

11. A, B and C are three components of our food. A & B provide us energy but A provides twice as much energy as that provided by an equal amount of B. The component C has no food value but it prevent the constipation and helps in the normal functioning of the digestive system
(a) What do you think is component A?
(b) Name the component B.
(c) What could component C be?
(d) Name one food which could provide us A.
(e) Name one food which could give us B.
(f) Name two common foods which can provide us C.

12. A person lives in hilly area. The drinking water and food grown in the area are poor in a mineral P. The deficiency of the P in the body causes an abnormal enlargement of gland Q leading to disease R. However, does not occur in the people living in coastal areas.
(a) What is the name of mineral P?
(b) Name the gland Q.
(c) What is the disease R?
(d) Why does disease R not occur in coastal areas?
(e) Name one disease in the children which occurs due to deficiency of mineral P in their diet.

Answers:

1) Rice
2) Carbon, hydrogen and oxygen
3) Both (a) and (b)
4) Animal fat
5) Body building
6) Simple Carbohydrate
7) Suffering from scurvy
8) Rohit is omnivore and cow is herbivore
9) Statement (i) and (ii) are correct but (iii) is incorrect.
10) Both A and R are true and R is the correct explanation of A.
11) (a) Fat (b) Carbohydrate (c) Roughage (d) Butter (e) Bread (f) Vegetables and Fruits
12) (a) Iodine (b) Thyroid gland (c) Goitre (d) Because coastal people eat a lot of sea food (like sea fish) which contain good amount of iodine mineral (e) Cretinism

Ch-4 Sorting Materials into Groups

1. Which of the following floats on water?
   (a) Wax
   (b) Marble
   (c) Coin
   (d) Eraser
2. Which of the following is a matter?
   (a) Air
   (b) Steel
   (c) Water
   (d) All of these
3. Which of the following is not a matter?
   (a) Carbon
   (b) Air
   (c) Milk
   (d) Sadness
4. Anything that has a mass and occupies space is called
   (a) classification
   (b) volume
   (c) matter
   (d) air
5. Which of the following has a fixed shape?
   (a) Iron
   (b) Oxygen
   (c) Milk
   (d) CO_2
6. Which of the following can be compressed easily?
   (a) Stone
   (b) Iron
   (c) Steel
   (d) Gas
7. The process of grouping the things on the basis of similar properties is called
   (a) roughness
   (b) classification
   (c) matter
   (d) arrangement
8. The liquid that floats on water is
   (a) milk
   (b) coconut oil
   (c) alcohol
   (d) all of these
9. Which gas is responsible for fizz in soft drinks?
   (a) Oxygen
   (b) Hydrogen
   (c) Nitrogen
   (d) Carbon dioxide
10. Transparent materials allow the light to pass through them
    (a) partially
    (b) completely

(c) sometimes only
(d) not at all

11. X,Y and Z are the three types of materials. The materials X and Y can break into pieces easily when hit with an object but material Z does not break easily. The material X is used in the windows of bathroom in our house whereas material Y is used in the windows of our drawing room. The material Z is used in making doors and almirahs in our house

(a) What do you think material X could be? What is general name of material like X?
(b) What could material Y be? Write the general name of material like Y.
(c) What could be material Z be? Write the general name of material like Z.

Answers

1) Wax
2) All of these
3) Sadness
4) Matter
5) Iron
6) Gas
7) Classification
8) Coconut oil
9) Carbon dioxide
10) Completely
11) (a) Ground glass ; Translucent material (b) Clear glass ; Transparent material (c) Wood; Opaque material

Ch-5 Separation of Substances

1. Mixtures need to be separated because
   (a) to remove undesirable substances
   (b) to get desirable substances
   (c) to obtain highly pure substances
   (d) all of the above
2. The method of separation used to separate stones from rice is
   (a) handpicking
   (b) threshing
   (c) winnowing
   (d) all of these
3. Butter is separated from milk by
   (a) sedimentation
   (b) filtration
   (c) churning
   (d) decantation
4. The separation of grains from husk is done by the process of
   (a) handpicking
   (b) sieving
   (c) winnowing
   (d) threshing
5. Threshing is done by
   (a) beating
   (b) animals
   (c) machines
   (d) all of these
6. Filtration is a method to separate the components of a
   (a) solution
   (b) mixture of a liquid and an insoluble substance
   (c) both (a) & (b)
   (d) pure substance
7. Which of the following method is used when there is a difference in size and colour of desirable and undesirable constituents?
   (a) Handpicking
   (b) Threshing
   (c) Filtration
   (d) Decantation
8. The components of a solution of sugar in water can be separated by
   (a) filtration
   (b) crystallisation
   (c) decantation
   (d) sedimentation
9. For preparing lemonade Anjali pour half a cup of water in a glass and add one teaspoon full of sugar and stir it well, until sugar dissolves completely, and thus go on adding sugar one teaspoonful at a time and stir and after some time observed some sugar remains undissolved and settles at the bottom of glass, the reason for this is
   a) Sugar is of poor quality

b) Stirring is not done properly
c) Solution becomes saturated
d) None of these

10. The process used to separate seeds and pulp from juices
    a) Sedimentation
    b) Decantation
    c) Filtration
    d) Handpicking

11. The mixture of a powdered white solid P and a liquid Q can be separated by filtration. The solid P is left behind on the filter paper but clear liquid Q passes through the filter paper and collects in the beaker kept below.

    (a) Name one solid which could be like P.
    (b) Name the liquid which Q could be.
    (c) What name is given to the solid left on filter paper?
    (d) What name is given to the clear liquid collected in the beaker?

12. Component A dissolves in component B to form a liquid mixture. If this mixture is subjected to a process C, then only component A can be recovered. But if this mixture is subjected to another process D, then both the components A and B can be recovered from their mixture.

(a) Name one component which could be like A.
(b) Give one example of a component like B.
(c) Name the process C.
(d) What could process D be?

Answers

1) All of the above
2) Handpicking
3) Churning
4) Winnowing
5) All of these
6) mixture of a liquid and an insoluble substance
7) Handpicking
8) Crystallisation
9) Solution becomes saturated
10) Filtration
11) (a) Chalk Powder (b) Water (c) Residue (d) Filtrate
12) (a) Salt (b) Water (c) Evaporation (d) Distillation

Ch-6 Changes around Us

1.A process in which an object becomes smaller or shrinks is called
(a) chemical change
(b) irreversible change
(c) contraction
(d) expansion

2. The change in which chemical properties of a substance change is called
(a) chemical change
(b) physical change
(c) heating
(d) pressure

3. Which is a way to make change happen?
(a) Heating a substance
(b) Cooling a substance
(c) Mixing a substance
(d) All of these

4. Which is not a sign of reversible change?
(a) Change in state
(b) Change in property
(c) Change in size
(d) Change in appearance

5. Which of the following changes can be reversed?
(a) Cow dung to biogas
(b) Bud to flower
(c) Wet clothes to dry clothes
(d) Raw egg to boiled

6. Rusting of iron is an example of
(a) slow change
(b) fast change
(c) reversible change
(d) physical change

7. Sharpening of pencil could be an example of:
(a) Physical and reversible change
(b) Physical and irreversible change
(c) Chemical change
(d) No change

8. Find the odd one out:

(a) Transition of bud to flower
(b) Withering of leaves
(c) Folding of leaves of Mimosa plant
(d) Transition of flower to fruit

9. Read the passage given below and answer the question that follows. Karuna went to the market with her mother. There she saw a blacksmith making some tools. The blacksmith took a piece of iron and heated till it becomes red-hot. It then becomes soft and is beaten into a desired shape.
The change in the piece of iron happened is
a) Reversible change
b) Irreversible change
c) Both reversible and irreversible change
d) None of these

10. Select the appropriate option given below
Assertion (A): Burning of paper is a reversible change.
Reason (R): The products formed on burning paper cannot be converted back to paper.

a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
c) Assertion is true but Reason is false
d) Assertion is false but Reason is true

11.When electricity passed through water, then two gases, hydrogen and oxygen are produced. On the other hand when heat supplied to water, then another gas, steam, is produced. What type of change takes place:

(a) in first case?
(b) in the second case?

12.When a liquid X is added to a grey, powdery substance Y, the substance Y slowly sets into hard mass. A thick paste of substance Y and sand made in liquid X is used for plastering the wall of houses.
(a) What could be liquid X be?
(b) Name the substance Y
(c) What type of change occurs on adding X and Y?

Answers

1) Contraction
2) Chemical change
3) All of these
4) Change in Property
5) Wet Clothes to Dry Clothes
6) Slow Change
7) Physical and irreversible change
8) Folding of leaves of Mimosa plant
9) Reversible change
10) Assertion is false but Reason is true
11) (a) Irreversible change (b) Reversible change
12) (a) Water (b) Cement (c) Irreversible change

Ch-7 Getting to Know Plants

1.Which is a shrub among the following?
(a) Spinach
(b) Mango tree
(c) Lemon
(d) Peepal

2. Which of the following type of plants has thick, hard and woody stem?
(a) Climber
(b) Herb
(c) Shrub
(d) Creepers

3.Which part of plant helps to carry food to all parts of plant?
(a) Root
(b) Stem
(c) Leaf
(d) Flower

4. Most of the fruits have
(a) flowers
(b) leaves
(c) root leaves
(d) seeds

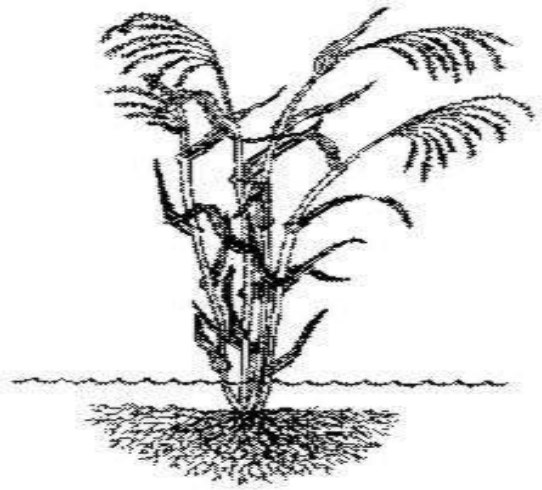
5. Plants take carbon dioxide from the air through tiny openings found on the
(a) fruits
(b) leaves
(c) roots
(d) stems

6.Which is a correct set of parts of a pistil?
(a) Ovary, style and filament
(b) Ovary, style and stigma
(c) Ovary, anther and filament
(d) Filament and anther

7. The correct equation of photosynthesis is

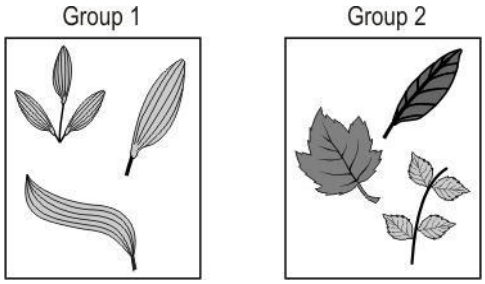
(a) Carbon Dioxide + Water + Chlorophyll $\xrightarrow{\text{in Sunlight}}$ Oxygen + Sugar
(b) Water + Chlorophyll $\xrightarrow{\text{in Sunlight}}$ Oxygen + Sugar + Carbon Dioxide
(c) Carbon Dioxide + Water + Sugar $\longrightarrow$ Oxygen + Chlorophyll and Sunlight
(d) Carbon Dioxide + Oxygen + Chlorophyll $\xrightarrow{\text{in Sunlight}}$ Sugar + Water

8.Which of the following plants would have a root structure similar to one shown in the figure below?



(a) coriander
(b) mango
(c) tulsi
(d) banana

9. Observe the leaves in groups 1 and 2 shown below. They have probably been classified based on.



(a) the shape of the leaf.
(b) the type of edge serrations.
(c) the pattern of veins.
(d) the shape of the leaf.

10. Ria went to a Botanical Garden and after returning, she asked some statements to her uncle. Choose the incorrect statement(s)told by Ria**.**

(a) Palm trees is a special tree which have many branches near the ground level.
(b) Bamboo is an example of grass.
(c) A climber plant has special organs for climbing, called tendrils.
(d) a Climber and creepers are different type of plant from each other

11. P and Q are two types of plants. Plant P has a thin, long and weak stem which cannot stand upright on its own. The plant P does not have tendrils and spreads on the ground. On the other hand, plant Q has a green, soft and delicate stem but it can stand upright on its own.
(a) What type of plant is P? Name one plant like P.

(b) What type of plant is Q? Name one plant like Q.

12. The flower of a plant has two reproductive organs X and Y. The organ X is flask- shaped whose sticky top part is A, the central is a long tube B and the swollen part at the bottom C. The part C contain tiny structures D. The organ Y consists of a long stalk having a swollen top E. The top E contains a powdery substance F.
(a) What are (i) X and (ii) Y?
(b) Name (i) A and (ii) B (iii) C and (iv) D.
(c) What are (i) E and (ii) F?
(d) What will part C become after fertilisation?
(e) What will structures D become after fertilisation ?

Answers

1) Lemon
2) Shrub
3) Stem
4) Seeds
5) Leaves
6) Ovary, style and stigma
7) Carbon dioxide +water+chlorophyll--sunlight----------→ oxygen+sugar
8) Banana
9) Palm trees is a special tree which have many branches near the ground level.
10) (a) Creeper plant ; Money plant (b) Herb; Sunflower plant
11) (a) (i) Pistil (ii) Stamen
    (b) (i) Stigma (ii) Style (iii) Ovary (iv) Ovules
    (c) (i) Anther (ii) Pollen
    (d) Fruits
    (e) Seeds

Ch-8 Body Movement

1.The place where cartilage is present in our body is
(a) outer parts of ear
(b) at the end of nose
(c) discs between vertebrae of the backbone
(d) all of the above

2.Which of the skull bones are movable?
(a) Upper jaw
(b) Teeth
(c) Eye socket
(d) Lower jaw

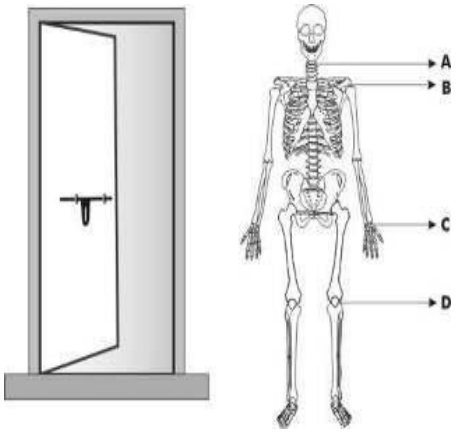
3.Which of the following animals moves with just one large, disc-shaped muscular foot?
(a) Earthworm
(b) Cockroach
(c) Snail
(d) Tortoise

4.Which one of the following occurs when we straighten our arm?
(a) Both biceps and triceps contract
(b) Both biceps and triceps relax
(e) Biceps contracts but triceps relaxes
(d) Triceps contracts but biceps relaxes

5.Which of the following are ball and socket joints?
A. Elbow
B. Shoulder joint
C. Knee joint
D. Hip joint
(a) A and B
(b) B and C
(c) A and C
(d) B and D

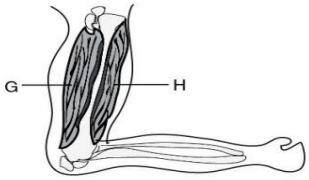
6.The joint in cranium is a
(a) gliding joint
(b) ball-socket joint
(c) fixed joint
(d) hinge joint

7. In the skeleton shown below, at which joint can the movement be ONLY like the opening and closing of a door?



(a) A
(b) B
(c) C
(d) D

8.In this figure, what are the conditions of muscle G and H when we bend our elbow?



(a) Muscle G is contracted and H is relaxed.
(b) Muscle G is relaxed and H is contracted.
(c) Both muscle G and H are relaxed.
(d) Both muscle G and H are contracted.

9.The figure shows an X-ray photograph of the human hand. Which of these statements about X-rays is likely to be true?

(a) They can pass through human bones.
(b) They can pass through muscles but not bones.
(c) They make the human body translucent.
(d) They absorb light from the human body.

10. In the following question, a statement of assertion (A) is followed by a statement of reason (R).
Assertion (A): Earthworm has muscles that help to extend or shorten the body.
Reason (R) : Muscles can only pull not push.

Answer the question selecting the appropriate option given below.
a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
c) Assertion is true but Reason is false
d) Assertion is false but Reason is true.

11. The animals A, B, C and D, all move without legs. The animal A moves by the alternate contractions and relaxations of the muscles of its disc- shaped foot. The animal B lives in water and swims by moving its tail from side to side. The animal C lives in soil and moves by lengthening and shortening its body segments alternately. The animal D moves forward by moving its body sideways in the form of many loops. What are A, B, C and D?

12. There are 12 pairs of curved bones called X in our chest region. One end of bones X is joined to the backbone and their other end is joined to bone Y in the front to form a box- like structure Z. This strong, box-like structure protects the delicate internal organs P, Q and R of our body.
(a) What are (i) X (ii) Y and (iii) Z?
(b) Name the organs (i) P (ii) Q and (iii) R.

Answers

1) All of the above
2) Lower jaw
3) Snail
4) Triceps contracts but biceps relax
5) B and D
6) Fixed joint
7) D
8) Muscle G is relaxed and H is contracted.
9) They can pass through muscles but not bones.
10) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
11) A: Snail ; B: Fish ; C: Earthworm ; D: Snake
12) (a) (i) Ribs (ii) Breast bone (iii) Rib cage (b) (i) Heart (ii) Lungs (iii) Liver

CH-9 Living Organism and their surrounding

1. What are the characteristics of a desert plant?
(a) No leaves or very small leaves
(b) Spines
(c) Deep roots
(d) All of these

2. Which is an aquatic adaptations?
(a) Streamlined body
(b) Light and hollow bones
(c) Hair on body
(d) Gills

3. Bending of a stem towards sunlight is called
(a) geotropism
(b) phototropism
(c) hydrotropism
(d) chemotropism

4. Which of the following is not the characteristic of a living thing?
(a) Growth
(b) Movement
(c) Do not need food
(d) Respiration

5.Fishes move about in the water with the help of their
(a) mouths and gills
(b) legs and scale
(c) wings and tails
(d) fins and tails

6. The water hyacinth is able to float on water because its_____
(a) flowers trap air.
(b) stem is fibrous and light
(c) leaves have a thick waxy coat.
(d) leaf stalks have lots of air space.

7. In water, where do fish get the oxygen, they need to breathe?
(a) Fish do not need to breathe oxygen.
(b) Each water molecule (H_2O) consists of an oxygen atom which fish breathe.
(c) Fish come up to the surface of the water from time to time to breathe.
(d) There is oxygen gas dissolved in the water which fish breath

8. Adaptation means adjusting to the conditions in the surroundings. This leads to different habits, behaviors and body features in animals. Which of the following is an example of adaptation?
(a) lions eating deer
(b) human beings wearing spectacles

(c) squirrels being fond of nuts
(d) thick fur coats on the bodies of polar bears

9. Which of these is a correct difference between HIBERNATION and MIGRATION?
(a) Hibernation occurs mostly in the winter; migration may occur in any season.
(b) Mostly cold-blooded animals hibernate, whereas mostly birds migrate.
(c) During migration food intake is nil, which is not so during hibernation.
(d) The animal's heart stops beating during hibernation, which is not so during migration.

10.Assertion (A): Sea animals have hair on their bodies.

Reason (R): Sea animals have streamlined bodies.

Select the correct option:

a. Both A and R are true and R is the correct explanation of A.
b. Both A and R are true but R is not the correct explanation of A
c. A is true but R is false
d. A is false but R is true

ANSWERS

1. All of these
2. Streamlined body & Gills
3. Phototropism
4. Do not need food
5. fins and tails
6. leaf stalks have lots of air space
7. There is oxygen gas dissolved in the water which fish breath
8. thick fur coats on the bodies of polar bears
9. Hibernation occurs mostly in the winter; migration may occur in any season.
10. A is false but R is true

CH-10 MOTION AND MEASUREMENT OF DISTANCE

1. An example of rectilinear motion is
   (a) apple falling from a tree
   (b) motion of a car on road
   (c) a spinning top
   (d) both (a) and (b)
2. Which is an example of a periodic motion?
   (a) Oscillation of a pendulum
   (b) Motion of a bus on road
   (c) A spinning top
   (d) A stone dropped from a certain height
3. What kind of motion is executed by a pendulum of a wall clock?
   (a) Oscillatory motion
   (b) Vibratory motion
   (c) Circular motion
   (d) Linear motion
4. One metre is equal to …….. millimetre.
   (a) 10
   (b) 1000
   (c) 100
   (d) 10000
5. The distance between Delhi and Mumbai is usually expressed in units of

   (a) decametre

   (b) metre

   (c) centimetre

   (d) kilometre

6. Paheli moves on a straight road from point A to point C. She takes 20 minutes to cover a certain distance AB and 30 minutes to cover the rest of distance BC. She then turns back and takes 30 minutes to cover the distance CB and 20 minutes to cover the rest of the distance to her starting point. She makes 5 rounds on the road the same way. Paheli concludes that her motion is

   (a) only rectilinear motion.

   (b) only periodic motion.

   (c) rectilinear and periodic both.

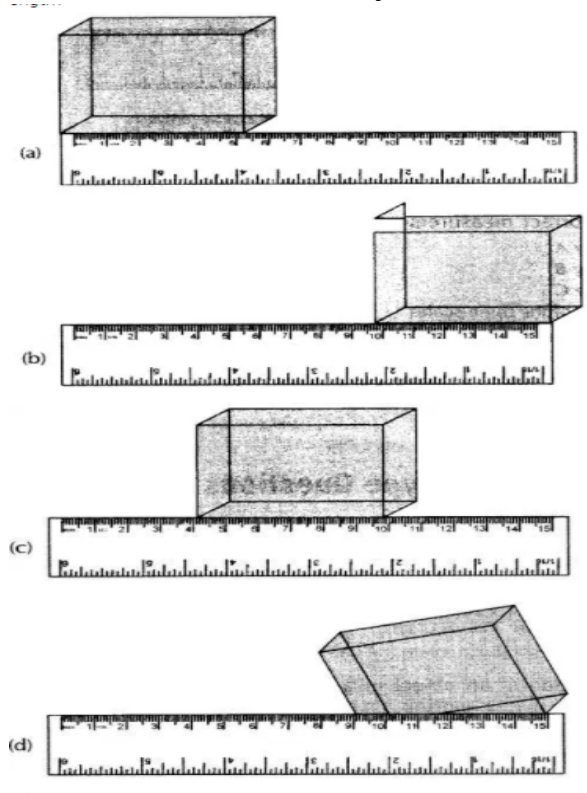
   (d) neither rectilinear nor periodic.

7. Motion of a hockey player while playing is an example of
   a) Periodic Motion
   b) Random Motion
   c) Circular Motion
   d) Rectilinear Motion

8. The moon revolves around the Earth. This causes
(a) day and night to be formed
(b) the moon to appear bright throughout the night
(c) seasons to occur on the Earth
(d) the moon's visible shape to change during the month

9. While measuring the length of a wooden box, the reading at one end is 1.5 cm and the other end is 4.7 cm. What is the length of the wooden box?
(a) 4.7cm
(b) 1.5cm
(c) 3.2 cm
(d) 6.2 cm

10. Which is the most correct way to measure the length of the box?



(a) (A)
(b) (B)
(c) (C)
(d) (D)

Answer

1. Both (a) and (b)
2. Oscillation of a pendulum
3. Oscillatory motion
4. 1000
5. kilometre
6. rectilinear and periodic both.
7. Random motion
8. the moon's visible shape to change during the month
9. 3.2 cm
10. C

CH-11 LIGHT , SHADOW AND REFLECTION

1. When an opaque object comes in the path of light it forms
   (a) an image with colours
   (b) shadow
   (c) black and white image
   (d) depends on the colour of the light

2. Which types of objects do not allow light to pass through them?
   (a) Translucent
   (b) Opaque
   (c) Transparent
   (d) Penumbra

3. Bouncing back of light from shining surfaces is called
   (a) Reflection
   (b) Refraction
   (c) Bending
   (d) Dispersion

4. What is lateral inversion?
   (a) Image becomes inverted
   (b) Image bends laterally
   (c) Right of the object appears left of the image
   (d) All of these happen

5. Which of the following is a cold source of light?
   (a) Firefly (Jugnu)
   (b) Tube light
   (c) The sun
   (d) Electric bulb

6. Which letters of English alphabet will not show lateral inversion?
   (a) I, O, U
   (b) N, Z, X
   (c) I, X, E
   (d) A, E, I

7. Out of these, which one is not a man-made luminous body?
   (a) Electric bulb
   (b) Burning candle
   (c) Firefly (Jugnu)
   (d) Oil lamp

8. A pinhole camera produces
   a) Inverted image and colour as same as that of the object

b) Inverted, and black and white image
c) Upright and colour as same as that of the object
d) Upright and black and white image

9. A student observes a tree given in the figure through a pin hole camera. Which of the diagrams given depict the image seen by her correctly?

Fig. 11.2

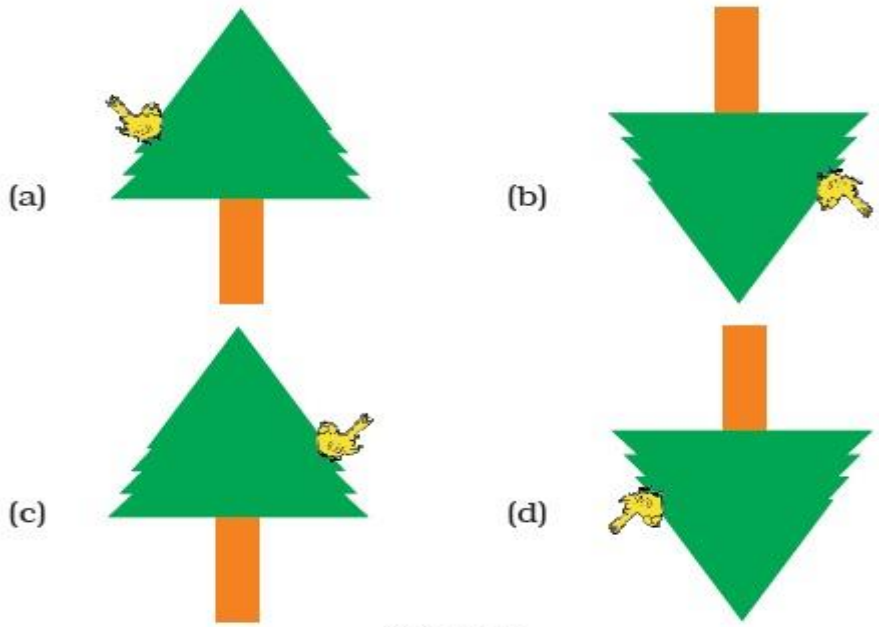
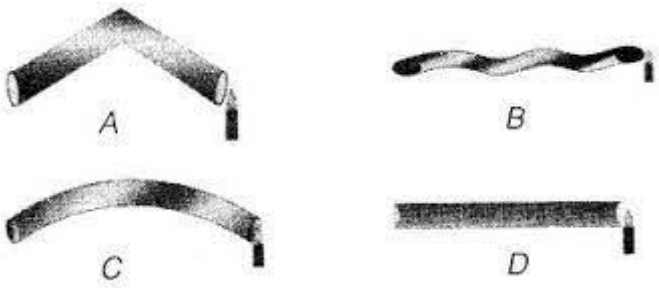


Fig. 11.3

10. Four students A, B, C and D looked through pipes of different shapes to see a candle flame as shown in fig.



Who will be able to see the candle flame clearly?
(a) A
(b) B
(c) C
(d) D

11. On a sunny day, when we pass under a tree covered with a very large number of leaves, we often see bright circular patches of light on the ground (under a tree). (a) What are the bright circular patches of light? (b) Name the object (sources of light) in this case. (c) What acts as screen in this case? (d) Which effect is illustrated by the everyday observation described above?

12. A man is sitting on a chair in a dark room near one of the walls. A big mirror is hung on the wall facing the man. When a torch light is put on the man from a distance, then we can see X of the man on the wall behind him. At the same time Y of the man can be observed in the mirror on the wall. (a) What is X? (b) What is Y? (c) State one way in which X differs from Y.

ANSWERS

1. shadow
2. Opaque
3. Reflection
4. Right of the object appears left of the image
5. Firefly (Jugnu)
6. I, O, U
7. Firefly (Jugnu)
8. Inverted image and colour as same as that of the object
9. D
10. D
11. (a) Pinhole images of the sun (b) Sun (c) Ground (d) Pinhole camera effect
12. (a) Shadow (b) Image (c) The shadow is black but the image is of the same color as the man.

CH-12 ELECTRICITY AND CIRCUITS

1. Cell is a device which
   (a) converts chemical energy into electrical energy
   (b) electrical energy into light energy
   (c) electrical energy into magnetic energy
   (d) None of these
2. A bulb has
   (a) two terminals and one filament
   (b) two terminals and two filaments
   (c) multiple terminals and single filament
   (d) single terminal and single filament
3. Bulb glows only in
   (a) closed circuit
   (b) open circuit
   (c) in both circuits
   (d) open circuit if bulb is not fused
4. A battery is
   (a) a single cell
   (b) a combination of cells in which cells are joined (+) to (-)
   (c) a combination of cells in which cells are joined (+) to (+)
   (d) None of these
5. A substance which does not allows electricity to pass through it is called
   (a) a conductor
   (b) an insulator
   (c) semiconductor
   (d) superconductor
6. Which is an example of an insulator
   (a) bakelite
   (b) aluminium
   (c) tap water
   (d) All of these
7. An example of a conductor is
   (a) tap water
   (b) salt solution
   (c) metal wire
   (d) all of these
8. How many terminals are there in a dry cell?
   (a) One
   (b) Two
   (c) Three
   (d) Four
9. To prevent electric shocks, the metallic electrical wires are covered with
   (a) paper
   (b) cotton

(c) aluminium
(d) plastic

10. Which of the following uses a chemical reaction to produce an electric current?
    (a) An electric generator
    (b) A dry cell
    (c) Wind mill
    (d) All of these

ANSWERS

1. converts chemical energy into electrical energy
2. two terminals and one filament
3. closed circuit
4. a combination of cells in which cells are joined (+) to (-)
5. an insulator
6. bakelite
7. all of these
8. two
9. plastics
10. a dry cell

CH-13 FUN WITH MAGNET

1. The ore of magnet is called
   (a) magnetite
   (b) magnesia
   (c) bauxite
   (d) hematite
2. Which of the following is a natural magnet?
   (a) Lodestone
   (b) Bar magnet
   (c) Ball-ended magnet
   (d) Horse-shoe magnet
3. Which of the following is an artificial magnet?
   (a) Bar magnet
   (b) Horse-shoe magnet
   (c) Disc shaped magnet
   (d) All of these

4. Which of the following is a non-magnetic material?
   (a) Iron
   (b) Cobalt
   (c) Glass
   (d) Nickel
5. A bar magnet is immersed in a heap of iron filings and pulled out. The amount of iron filing clinging to the
   (a) north pole is almost equal to the south pole.
   (b) north pole is much more than the south pole.
   (c) north pole is much less than the south pole.
   (d) magnet will be same all along its length.
6. A freely-suspended bar magnet rests in:
   (a) north-south direction
   (b) east-west direction
   (c) north-east direction
   (d) any direction by chance
7. Which of the following makes use of a magnet?
   (a) A shirt button
   (b) A screwdriver
   (c) A can opener
   (d) A door stopper
8. Attraction is maximum at the
   (a) centre
   (b) poles
   (c) both (a) and (b)
   (d) None of these

9. What happens when we hit a magnet with a hammer?
   (a) It gains more magnetic force
   (b) It demagnetises
   (c) The north and south poles change positions
   (d) None of the above
10. **Assertion (A):** Magnet lose their properties if they are heated, hammered or dropped from height.

    Reason (R): Magnets become weak if they are not stored properly.

    Select the correct option:

    (a) Both A and R are true and R is the correct explanation of A.
    (b) Both A and R are true but R is not the correct explanation of A
    (c) A is true but R is false
    (d) A is false but R is true

ANSWERS

1. magnetite
2. Lodestone
3. All of these
4. Glass
5. north pole is almost equal to the south pole.
6. north-south direction
7. A door stopper
8. poles
9. It demagnetises
10. (a)

CH-14 WATER

1. How much percentage of water does a human body contains?
   (a) 60%
   (b) 70%
   (c) 80%
   (d) 90%
2. The water in oceans cannot be used because
   (a) it is salty
   (b) it is harmful
   (c) it is toxic
   (d) it is acidic
3. Which of the following are the sources of water?
   (a) Rivers
   (b) Ponds
   (c) Lakes
   (d) All of these
4. The place where underground water comes out on the surface of earth on its own is called
   (a) rainwater
   (b) spring
   (c) sea level
   (d) glacier
5. Which of the following is the largest source of water?
   (a) Sea
   (b) Ocean
   (c) Pond
   (d) Lake
6. Potable water is
   (a) ocean water
   (b) groundwater
   (c) river water
   (d) pond water
7. Which one of the following is a purest form of water?
   (a) River water
   (b) Groundwater
   (c) Rainwater
   (d) Ocean water
8. The water which had escaped from the earth as vapour returns to the earth in the form of
   (a) precipitation
   (b) evaporation
   (c) infiltration
   (d) condensation
9. Which is a result of condensation of water vapours?
   (a) Rain

(b) Snowfall
(c) Hail
(d) Tiny water droplets

10. In which of the following does condensation of water vapour take place?
A. Breathing on to a mirror
B. Heating an open beaker in water
C. Leaving a glass of ice on the table
D. Leaving a cup of water by the window
(a) A and B
(b) B and C
(c) A and C
(d) C and D

11. A material P exists in 3 physical states: Solid, Liquid, and Gaseous. No living thing on earth can exist in the absence of this material. This material falls from the clouds in the form Q. Lack of Q for long periods in an area my cause R whereas excess of Q may cause S.

a) What is P, R & S?

b) What is the solid state of P known as?

ANSWERS

1. (b) 70%
2. (a) it is salty
3. (d) All of these
4. (b) spring
5. (b) Ocean
6. (c) Rainwater
7. (b) Groundwater
8. (a) precipitation
9. (d) Tiny water droplets
10. (c) A and C
11. (a) P-Water , Q- Rain & S- Drought
    (b) Ice

CH-15 AIR AROUND US

1. Which components of air are harmful to living organisms?
   (a) Nitrogen and oxygen
   (b) Dust and smoke
   (c) Oxygen and carbon dioxide
   (d) Smoke and water vapour
2. Oxygen is a supporter of
   (a) combustion
   (b) nitrogen
   (c) smoke
   (d) dust
3. Properties of oxygen gas is
   (a) colourless
   (b) tasteless
   (c) odourless
   (d) all of these
4. Plants obtain nitrogen mainly from
   (a) humus
   (b) animals
   (c) soil
   (d) water
5. The air over industrial cities has usually higher amount of which one of the following components than normal air?
   (a) Oxygen
   (b) Carbon dioxide
   (c) Nitrogen
   (d) Argon
6. Which is not a property of air?
   (a) It occupies space.
   (b) It is transparent,
   (c) It is a solution.
   (d) It is a compound.
7. The ratio of nitrogen to oxygen in the air is
   (a) 1:4
   (b) 4:1
   (c) 3:1
   (d) 1:2
8. The main constituent of the air is.
   (a) nitrogen
   (b) oxygen
   (c) carbon dioxide
   (d) hydrogen
9. Wind is
   (a) air around us
   (b) rising hot air

(c) air in motion
(d) none of these

10. Name a gas which is odourless, colourless, heavier than air and extinguishes fire.
(a)Hydrogen
(b) Oxygen
(c)Helium
(d) Carbon dioxide

11. The gas X is colourless and odourless having a slightly sour taste which is a mirror component of air. It is moderately soluble in water. This gas neither burns nor supports burning. It rather extinguishes a burning fire. If there were no gas X in air, there would be no animals or plants on earth. a) Name the gas X. b) What is the percentage of gas X in air? c) State 2 ways in which gas X is added to air. d) Why is gas X very important for the existence of all life?

12. P, Q and R are the three gaseous components of air. Gases P and Q can dissolve in the water rivers, lakes and seas but gas R does not dissolve in water. The organisms S which lives in water use the gas P dissolved in the water to make their food by the process of photosynthesis. All the organisms which live in water use the gas Q dissolved in the water for releasing energy from food. Gas R is the major component of air
(a) What are gases (i) P (ii) Q and (iii) R?
(b) Name the organisms S.

ANSWERS

1. Dust and smoke
2. combustion
3. all of these
4. soil
5. Carbon dioxide
6. It is a compound
7. 4:1
8. Nitrogen
9. Air in motion
10. Carbon dioxide
11. a) Carbon dioxide
    b) 0.03%
    c) (i) Respiration of plants and animals (ii) Burning of carbon dioxide gas of air
    d) Because of all the food which animals (including human beings) eat is made from carbon dioxide gas of the air.
12. (a) (i) Carbon dioxide (ii) Oxygen (iii) Nitrogen (b) Plants