CBSE
Class VI Science
Term 1
Sample Paper - 1

Time: 2 ½ hrs   **Total Marks: 80**

General Instructions:
1. The question paper consists of 34 questions and is divided into four sections, A, B, C and D
2. All questions are compulsory.
3. Section A comprises question numbers 1 to 15. These are multiple choice questions carrying one mark each. You are to select one most appropriate response out of the four provided options.
4. Section B comprises question numbers 16 to 22. These are SAQs carrying two marks each.
5. Section C comprises question numbers 23 to 31. These are SAQs carrying four marks each.
6. Section D comprises question numbers 32 to 34. These are SAQs carrying five marks each.

SECTION A

Q.1 The mineral required for the proper functioning of the thyroid gland is   (1)
   A. Iodine
   B. Iron
   C. Calcium
   D. Phosphorus

Q.2 Hay and grains are eaten by   (1)
   A. Lions
   B. Cats
   C. Tigers
   D. Buffaloes

Q.3 Which part of the flower protects it when it is in the bud form?   (1)
   A. Filament
   B. Stamen
   C. Sepals
   D. Petals

Q.4 The heart is protected by the   (1)
   A. Ball and socket joints
   B. Ribcage
   C. Backbone
   D. Skull

Q.5 The body of the earthworm lacks   (1)
   A. Muscles
   B. Bones
   C. Rings
   D. Digestive system

Q.6 Which process is being shown in the image below?   (1)

   A. Knitting
   B. Spinning
   C. Weaving
   D. Combing

Q.7 From which part of the jute plant is the jute fibre obtained?   (1)
   A. Leaves
   B. Roots
   C. Stem
   D. Flower

Q.8 We cannot predict what is kept in a cardboard carton because   (1)
   A. Cardboard is opaque.
   B. Cardboard is transparent.
   C. Cardboard is translucent.
   D. Cardboard is dark in colour.

Q.9 Find the odd one out of the following: (1)

    A. Bag
    B. Ice-cream cone
    C. Pencil
    D. Bag and ice-cream cone

Q.10 Which of the following is not made of glass? (1)
    A. Window
    B. Window pane
    C. Tumbler
    D. Beaker

Q.11 Which of the following is not a property of plastics? (1)
    A. They do not corrode.
    B. They can be moulded into any shape.
    C. They are good conductors of heat and electricity.
    D. They are obtained from petroleum oil.

Q.12 The length of the playground is ten times the length of the classroom. If the classroom is 10 m long, then the playground is _____ long. (1)
    A. 10 cm
    B. 1 m
    C. 100 m
    D. 1000 m

Q.13 The pendulum of a clock has (1)
    A. Periodic motion
    B. Circular motion
    C. Rectilinear motion
    D. All of the above

Q.14 Which of the following is not a source of light? (1)
    A. Candle
    B. Sun
    C. Torch
    D. Mirror

Q.15 The image formed by a pinhole camera is   (1)
   A. Erect
   B. Upside down
   C. Bent at an angle
   D. None of the above

SECTION B

Q.16 Briefly describe the structure of stamen.   (2)

Q.17 What are omnivores? Give two examples.   (2)

Q.18 How will you show the presence of fats in groundnut?   (2)

Q.19 Which type of joint exists between   (2)
   (i) Upper jaw and rest of skull
   (ii) Lower jaw and rest of skull

Q.20 You are given a task to make an umbrella. List four materials you will require to make it.   (2)

Q.21 While measuring the length of a pencil with a scale, one end is at 2.5 cm and the other end at 9.2 cm. What is the length of the pencil in millimetres?   (2)

Q.22 Explain the process of shadow formation.   (2)

SECTION C

Q.23   (4)
   (i) Name the insects which make honey.
   (ii) How do they make honey?
   (iii) Where do the insects store honey?
   (iv) What are honeycombs?

Q.24   (4)
   (i) How does a flower develop?
   (ii) How is water transported from roots to leaves?

Q.25 (4)

(i) Write the importance of the skull.
(ii) What is the function of the discs of cartilage present between the vertebrae of the backbone?

Q.26 What is spinning? Explain the process. Also name any two devices used for spinning. (4)

Q.27 (4)
(i) What is the importance of oxygen gas dissolved in water?
(ii) How is carbon dioxide gas dissolved in water helpful to plants which live in water?
(iii) Name two examples of gases which do not dissolve in water.

Q.28 Which of the following are soluble in water and which are insoluble in water? (4)
Groundnut oil, Potassium permanganate, Alum, Wax, Sugar, Sand, Petrol, Copper sulphate

Q.29 (4)
(i) What are the different types of motion which take place when a car is turning around a roundabout?
(ii) What is measurement?

Q.30 (4)
(i) A cricket bat is 11 times longer than the scale in your geometry box. If the length of the scale is 15 cm, what is the length of the cricket bat?
(ii) What can you tell about the motion of a raindrop when there is no wind? What if there is a wind blowing?

Q.31 (4)
(i) What is a pinhole camera?
(ii) How does the word F appear in a pinhole camera?

SECTION D

Q.32 Explain how an earthworm moves. (5)

Q.33 A and B are two natural fibres. Fibre A is soft and smooth, and is separated from the seeds by the process C. Fibre A is used for making the wicks of oil lamps lit on Diwali. Fibre B is rough and is present as an outer covering on the ripened fruit D which occurs mainly in coastal areas. Fibre B is also known by another name E. This fibre is used for making ropes and mats. (5)
  (i) Name fibre A.
  (ii) What is process C known as?
  (iii) Name fibre B.
  (iv) What is the name of fruit D?
  (v) Write the name E.

Q.34 Give the characteristics of the image formed by a plane mirror. (5)

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SECTION A

1. **Ans.** Correct Option: [A]
   Solution: Iodine is required for the proper functioning of the thyroid gland.

2. **Ans.** Correct Option: [D]
   Solution: Buffaloes are herbivores and consume only plant products.

3. **Ans.** Correct Option: [C]
   Solution: Sepals protect the flower when it is in the bud form.

4. **Ans.** Correct Option: [B]
   Solution: The ribcage protects the heart, lungs etc.

5. **Ans.** Correct Option: [B]
   Solution: Bones are not present in the earthworm body.

6. **Ans.** Correct Option: [C]
   Solution: Weaving is a process in which yarn is woven to make fabric. It is done on a loom.

7. **Ans.** Correct Option: [C]
   Solution: Jute fibre is obtained from the stem of the jute plant.

8. **Ans.** Correct Option: [A]
   Solution: Cardboard is opaque, and hence, we cannot see through it. Thus, we cannot say what is kept inside a cardboard carton.

9. **Ans.** Correct Option: [B]
   Solution: The pencil and bag can be grouped together because they are used in school.

10. **Ans.** Correct Option: [A]
    Solution: Windows are not made of glass.

11. Ans. Correct Option: [C]

   Solution: They are bad conductors of heat and electricity.

12. Ans. Correct Option: [C]

   Solution: The length of the classroom is 10 m.
   The length of the playground is 10 times the length of the classroom.
   Hence, the length of the playground is 10 × 10 m = 100 m.

13. Ans. Correct Option: [A]

   Solution: The motion of a pendulum is regular and repeats after equal intervals of time. Hence, the pendulum of a clock has periodic motion.

14. Ans. Correct Option: [D]

   Solution: A mirror does not emit light. It only reflects light emitted from a source.

15. Ans. Correct Option: [B]

   Solution: The image formed by a pinhole camera is upside down, i.e. it is inverted in nature.

SECTION B

16. Ans. Structure of stamen:
   A stamen comprises an anther and a stalk, called the filament, to which the anther is attached. Anthers are sac-like structures which contain pollen grains.

17. Ans. Omnivores are animals which eat both plants and animals; for example, human and dog.

18. Ans. Rub a piece of groundnut against a paper without tearing the paper. Then observe the paper. The presence of an oily patch indicates the presence of fats in groundnut.

19. Ans.
   (i) Fixed joint
   (ii) Hinge joint

20. Ans. Materials required to make an umbrella are
   1. Waterproof cloth/plastic sheet
   2. Wire
   3. Steel rods
   4. Thread

21. Ans. Length of the pencil = reading of second end − reading of first end

$$= 9.2 \text{ cm} - 2.5 \text{ cm}$$
$$= 6.7 \text{ cm}$$

But 1 cm = 10 mm

∴ 6.7 cm = 67 mm

So, the length of the pencil = 67 mm.

22. Ans. When an opaque object is placed in front of a source of light, the light rays cannot pass through it. However, they can bend around the object. So, a dark region in the shape of the object is formed behind the object (the light source being on the other side). This dark region is the shadow of the object.

SECTION C

23. Ans.

(i) Honey is produced by honey bees.

(ii) Bees collect nectar from the flowers of plants and convert it into honey.

(iii) The bees store honey in beehives.

(iv) The hives containing honey are called honeycombs.

24. Ans.

(i) A flower develops from a bud. Before this development, the young developing petals are protected by the small leaf-like green structures called sepals. The bud later blooms into a full-grown flower.

(ii) Water is transported from roots to leaves through the stem.

25. Ans.

(i) The skull encloses and protects the brain from any injuries or sudden shocks.

(ii) The discs of cartilage present between the vertebrae of the backbone allow the vertebrae to move slightly and enable the backbone to bend forward and backward.

26. Ans.

Spinning is the process of making yarn from fibres.

Fibres from a mass of cotton wool are drawn and twisted. This helps to bring the fibres together to form yarn.

Devices used for spinning are spindle (takli) and spinning machine.

27. Ans.

(i) Oxygen gas dissolves in water. The plants and animals which live in water use the oxygen dissolved in water for respiration. Thus, oxygen gas dissolved in water is important for the survival of these animals and plants.

(ii) Carbon dioxide gas also dissolves in water. The plants which live in water use the carbon dioxide dissolved in water for photosynthesis.

(iii) Nitrogen and methane gas do not dissolve in water.

28.. Ans. Soluble in water: Potassium permanganate, Sugar, Alum, Copper sulphate
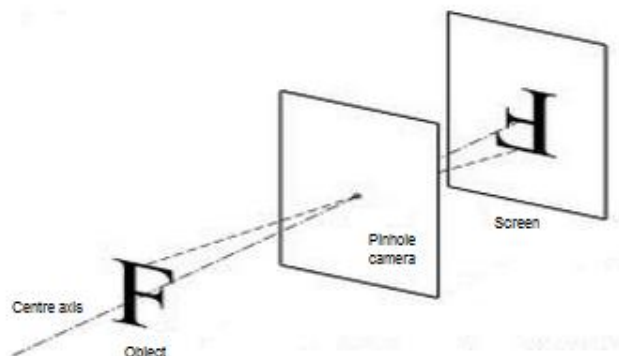   Insoluble in water: Groundnut oil, Wax, Sand, Petrol

29. Ans.

(i) The car and the people sitting inside it are moving in a circle, and hence, their motion is circular motion. The wheels are in two types of circular motion—one about their centre, and the other about the centre of the roundabout.

(ii) Measurement is the determination of the dimensions, quantity or capacity of an item.

30. Ans.

(i) The length of the scale is 15 cm.
    The length of the bat is 11 times the length of the scale.
    Hence, the length of the bat is 11 × 15 cm = 165 cm.

(ii) When there is no wind, the raindrop falls down along a straight line, so its motion is rectilinear.
    However, when there is wind blowing, the raindrop is carried away while falling downward, so it will have a combination of many motions such as rectilinear, circular, zigzag, rotational etc.

31. Ans.

(i) A pinhole camera is a simple camera with no lens and with a single small aperture.

(ii) The image of the word F appears as given below.

SECTION D

32. **Ans.** The body of the earthworm is made of many rings which are joined end to end. These rings help the earthworm to move forward. The muscles in the body help the earthworm to extend and shorten its body.

    At first, the front portion of the body extends and the rear portion of the body remains fixed to the ground.

    Then the earthworm fixes the front end and releases its rear end. This helps it to shorten its body and to move forward.

    By repeating the same movement by contracting and relaxing the muscles, the earthworm moves ahead.

33. **Ans.**
    (i) Cotton
    (ii) Ginning
    (iii) Coconut fibre
    (iv) Coconut
    (v) Coir

34. **Ans.**
    The characteristics of the image formed by a plane mirror are
    (i) The image formed in a plane mirror is virtual (or unreal). It cannot be obtained on a screen.
    (ii) The image formed in a plane mirror is at the same distance behind the mirror as the object is in front of it.
    (iii) The image in a plane mirror is of the same size as the object. It is neither enlarged nor diminished.
    (iv) The image in a plane mirror is erect. It is the same side up as the object.
    (v) The image in a plane mirror is laterally inverted (sideways reversed) with respect to the object.