

**Goa Board  
Class VI Science  
Term 1  
Sample Paper – 3 Solution**

**Time: 3 hrs**

**Total Marks: 100**

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**SECTION A**

1. **Ans.** Correct Option: [D]  
Solution: The coconut palm tree has a fibrous root system.
2. **Ans.** Correct Option: [D]  
Solution: Carnivores eat other animals and do not consume plant products.
3. **Ans.** Correct Option: [B]  
Solution: Beriberi is caused by the deficiency of vitamin B.
4. **Ans.** Correct Option: [A]  
Solution: 'A' in the diagram is the anther.
5. **Ans.** Correct Option: [B]  
Solution: The given image is of the ball and socket joint.
6. **Ans.** Correct Option: [C]  
Solution: Femur is not an arm bone in the human skeleton.
7. **Ans.** Correct Option: [D]  
Solution: Linen cloth is made of stem fibres of flax plant.
8. **Ans.** Correct Option: [C]  
Solution: After people began to settle in agricultural communities, they learnt to weave twigs and grass into mats and baskets.
9. **Ans.** Correct Option: [B]  
Solution: In knitting, a single yarn is used to make a piece of fabric.
10. **Ans.** Correct Option: [D]  
Solution: A wind shield is a transparent material, while all the others are opaque or translucent materials.

**11. Ans.** Correct Option: [D]

Solution: All the objects mentioned are round.

**12. Ans.** Correct Option: [B]

Solution: Of all the things, only a pencil and books can be used both at home and in the classroom.

**13. Ans.** Correct Option: [A]

Solution: All metals have lustre. Silver is a metal, and hence, it regains its lustre on polishing.

**14. Ans.** Correct Option: [A]

Solution: Foot and yard are units to measure length.

**15. Ans.** Correct Option: [A]

$$\text{Solution: } 1\text{km/hr} = \frac{1000\text{m}}{3600\text{sec}} = \frac{5}{18} \text{ m/s}$$

**16. Ans.** Correct Option: [B]

Solution: Distance between the fingertips and the elbow

**17. Ans.** Correct Option: [C]

Solution: The string of a guitar and the surface of a drum have periodic motion.

**18. Ans.** Correct Option: [A]

Solution: Nearer the object to the light source, larger is its shadow. Thus, the shadow will be larger than the object.

**19. Ans.** Correct Option: [B]

Solution: The Moon does not have its own light. It can be seen when it reflects the Sun's light falling on it.

**20. Ans.** Correct Option: [D]

Solution: Rectilinear propagation of light

**SECTION B**

**21. Ans.** The leaves of orange and tomato plants show reticulate venation.

**22. Ans.** Money plant and bougainvillea are climbers, while grapevines and beanstalk are creepers.

**23. Ans.** The chest bones (ribs) and the backbone are joined to form a box called the rib cage. This cage provides protection to some internal organs of our body such as the heart, lungs and liver.

**24. Ans.** Functions of calcium:

- (i) Calcium is needed for making bones and teeth.
- (ii) It also helps in the proper functioning of the heart and other muscles.

**25. Ans.**

- (i) Jute fibre is composed primarily of the plant materials cellulose and lignin.
- (ii) Jute is used for making gunny bags because it is a strong fibre.

**26. Ans.** The categories will be

1. Flowers
2. Animals
3. Birds
4. Trees

**27. Ans.** In ancient times, people used the bark of trees, big leaves of trees, animal skins and fur to cover themselves.

**28. Ans.**

Length of the pen = 2 × length of the eraser = 2 × 6 cm = 12 cm

Now, length of the sharpener = length of the pen/4 = 12/4 = 3 cm

**29. Ans.**

The conditions required to see a clear image through a pinhole camera are

- The object should be well illuminated.
- A piece of black cloth should be used to cover your head and the pinhole camera.

**30. Ans.**

Glass containers being transparent allow customers to see the chocolates stored in them easily. Hence, glass containers are used to keep chocolates.

**SECTION C****31.Ans.**

- (i) The movement of the earthworm is dependent on the muscles which help to extend and shorten the body. This pattern marks the movement of its body.
- (ii) Functions of the backbone:
  - a. It provides main support to the body.
  - b. It protects the spinal cord.

**32.Ans.**

- (i) The hip bones are called the pelvic bones. They enclose the portion of our body below the stomach. This is the part on which we sit.
- (ii) The two major functions of backbone are
  - (1) It provides main support to the body.
  - (2) It protects the spinal cord.

**33.Ans.**

- (i) Groundnut and mustard seeds are called oilseeds because they are used to extract edible oils which are used for cooking food.
- (ii) Herbivores consume only plants and plant products, whereas carnivores feed on other animals only.

**34.Ans.**

- (i) The leaves of an orchid plant show parallel venation, whereas the leaves of a lemon plant show reticulate venation.
- (ii) The leaves of the plant prepare their food through the process of photosynthesis. During this process, sunlight, water and carbon dioxide are used. Oxygen is released in the air.

**35.Ans.**

- (i) After maturing, cotton bolls burst open to produce cotton seeds covered with white, soft cotton fibres.
- (ii) The process of separating cotton fibres from the seeds is called ginning. It was done traditionally by hand using a comb-like device. Nowadays, ginning is done by using machines.
- (iii) Cotton fibres are used for making fabrics (clothes), mattresses, quilts, filling of pillows etc.

**36.Ans.**

- (i) Materials lighter than water: Wood, ice  
Materials heavier than water: Stone, soil
- (ii) Materials miscible with water: Glycerine, vinegar  
Materials immiscible with water: Kerosene, coconut oil

**37.Ans.**

- (i) Glass: Mirror, beaker
- (ii) Leather: Shoes, bags
- (iii) Copper: Utensils, electric wires
- (iv) Cotton: Pillows, fabrics

**38.Ans.**

- (i) Rectilinear motion: Motion in a straight line is called rectilinear motion.
- (ii) Circular motion: When an object moves along a circular path, it is called circular motion.
- (iii) Periodic motion: Motion which repeats after regular intervals of time is called periodic motion.
- (iv) Rotational motion: When an object turns about a fixed axis, it is called rotational motion.

**39.Ans.**

- (i) The mark at the broken end is 2.6 cm. So, we will use the scale from the next full mark, i.e. 3 cm. We now measure the length of the pencil by keeping the 3-cm mark of the scale at its left end. The 3-cm value is then subtracted from the scale reading at the right end of the pencil to obtain the correct length of the pencil.
- (ii)
  - 1) Place the scale in contact with object along its length.
  - 2) Your eye must be exactly in front of the point where the measurement is to be taken.

**40.Ans.**

- (i) When an object is placed in front of a source of light, it produces a shade (dark area) behind it. The 'shade' cast by an object is called its 'shadow'. Shadows are formed when light is stopped by an object.
- (ii) When a bird is on the ground, we can see its shadow which is formed by sunlight. In this case, the bird obstructs sunlight to form a shadow on the ground close to it. When the same bird is flying high up in the sky, it still obstructs sunlight falling on it; however, its shadow is not seen on the ground because the ground is very far below the bird.

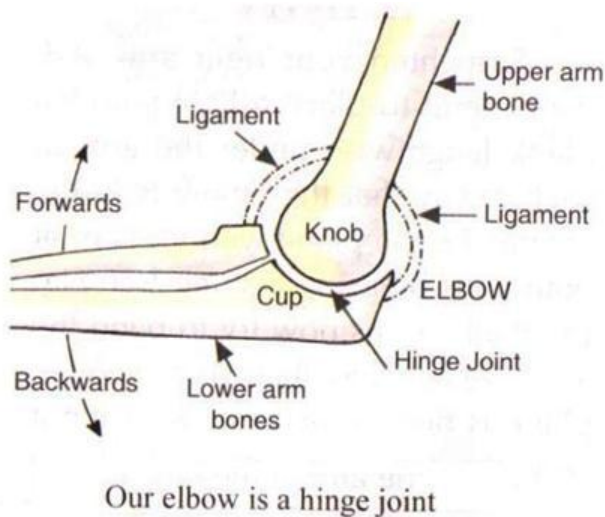
## SECTION D

### 41.Ans.

- (i) The part of a plant which rises vertically up from the ground is called the stem.
- (ii) The main functions of the stem in a plant are
  - a. To hold the plant upright.
  - b. To carry water and minerals from the roots to the leaves and the other parts of the plant.
  - c. To carry the prepared food from the leaves to the other parts of the plant.
  - d. To hold the leaves in such a way that the leaves are able to get plenty of sunlight for preparing food by photosynthesis.

### 42.Ans.

- (i) The place where two bones meet in the skeleton is called a joint.
- (ii) The four types of joints in the human body are
  - a. Hinge joints
  - b. Ball and socket joints
  - c. Pivot joints
  - d. Fixed joints



### 43.Ans.

- P: Wool; it is obtained from animal's skin.
- Q: Woollen yarn
- R: Spinning; it converts fibres into yarn.
- S: Knitting; the sweater is made by using a single yarn.
- P is a natural fibre.



**44. Ans.**



(a)



(b)

Fix a lighted candle on a table. Take a rubber tube, stretch it straight and look through it at the flame of the candle with one eye (keeping the other eye closed) [see Figure (a)]. We will find that when the rubber tube is straight, we can see the light of the candle flame through it.

Now, bend the rubber tube a little and look through it at the candle flame again [see Figure (b)]. We cannot see the light of the candle flame through a bent rubber tube. This means that the light of the candle flame can travel through the hole of the straight rubber tube but not through the bent rubber tube. From this observation, we conclude that light travels in a straight line.