



General Instructions:

- i. This question paper consists of 39 questions in 5 sections.
- ii. All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.
- iii. **Section A** consists of 20 objective type questions carrying 1 mark each.
- iv. **Section B** consists of 6 Very Short questions carrying 02 marks each.
- v. **Section C** consists of 7 Short Answer type questions carrying 03 marks each.
- vi. **Section D** consists of 3 Long Answer type questions carrying 05 marks each.
- vii. **Section E** consists of 3 source-based/case-based units of assessment of 04 marks each with sub-parts.

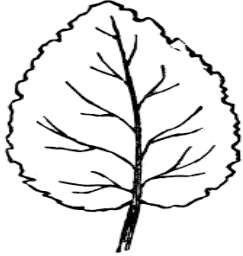

SECTION – A

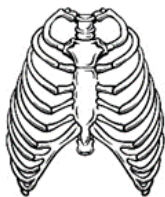
Select and write one most appropriate option out of the four options given for each of the questions 1 - 20

- 1 Select the odd one out with reference to lustrous materials. 1
a. silver b. diamond c. gold d. paper

 - 2 A student has separated water from the mud. Which of the following properties of mud allowed her/him to separate water from the mud? 1
a. mud floats on water. b. mud turns water milky.
c. mud is heavier than water. d. mud evaporates in water

 - 3 Through which process does the plant release excess of water? 1
a. transpiration b. condensation c. evaporation d. photosynthesis

 - 4 Study the two leaves given below. 1
These are similar because:
a. they are from same plant.
b. their shapes are the same.
c. they have same venation.
d. their plants have different kinds of roots.
- 
- 5 Among the following liquids, choose the liquid which is immiscible in water? 1
a. vinegar b. honey c. coconut oil d. lemon juice

- 6 Select the correct match between the characteristics of stem and category of plant. 1
- green and tender stem: herb
 - weak stems which spread on ground: climber
 - thick hard stems with branches near the base: tree
 - thick hard stems with branches higher up on the stem: shrubs
- 7 A person is detected with protein deficiency. If the person is a vegetarian, what will you suggest her/him to eat from the following food items to overcome this deficiency. 1
- water melon and paneer
 - meat and boiled egg
 - boiled potato and fish
 - paneer and tuar dal
- 8 In human beings, which of the following body organs are protected by the part of the skeleton shown in the picture? 1
- heart
 - brain
 - kidney
 - Lungs
- Choose the correct answer from the option below:
- i and ii
 - ii and iv
 - i and iii
 - i and iv.
- 
- 9 Reena performed the following test on a food sample: 1
- Water soluble food sample + Iodine solution \longrightarrow blue black colour.
- By performing the above test, what will be Reena's conclusion with respect to the following component of food?
- presence of proteins
 - presence of starch
 - presence of vitamins
 - presence of fat
- 10 Read the following statements and select the true statement about cockroaches' legs and wings. 1
- cockroaches have two legs and two wings.
 - cockroaches have four legs and four wings.
 - cockroaches have six legs and four wings.
 - cockroaches have eight legs and two wings.
- 11 Salt is obtained from sea water by the following process. 1
- sedimentation
 - evaporation
 - condensation
 - decantation
- 12 Which of the following statement is incorrect? 1
- chalk dissolves in water.
 - sugar dissolves in water
 - sand settle down in water.
 - a piece of wood float in water.
- 13 Components of a mixture, separated by sieving, are based on differences in their: 1
- weight
 - colour
 - shape
 - size

- 14 The animal which moves with just one large, disc-shaped muscular foot. 1
 a. Earthworm b. Cockroach c. Snail d. Tortoise
- 15 Name the substances that allow light to pass through them, but partially. 1
 a. transparent b. translucent c. opaque d. lustrous
- 16 Which of the following is **NOT** a correct match? 1
 a lamina: green flat part of a leaf b. petiole: attaches the leaf to stem
 c. margin: gives shape to the leaf d. veins: transpiration

Q. no. 17 to 20 are Assertion- Reason based questions.

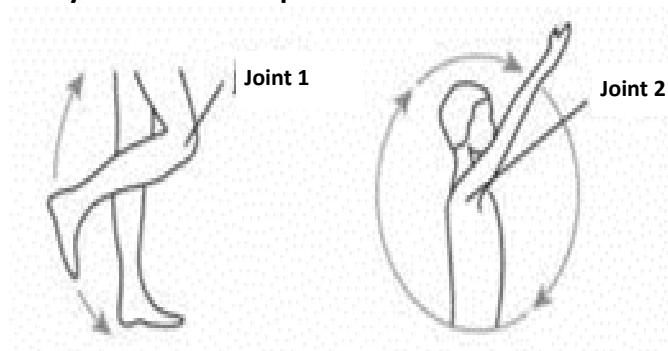
These consist of two statements - Assertion (**A**) and Reason (**R**). Answer these questions selecting the most appropriate option given below:

- a. Both A and R are true and R is the correct explanation of A.
 b. Both A and R are true and R is not the correct explanation of A.
 c. A is true but R is false.
 d. A is false but R is true.
- 17 **Assertion (A):** Roughage is not necessary for our body. 1
Reason (R): Roughage does not provide any nutrients.
- 18 **Assertion (A):** One can easily separate a mixture of sand and water by filtration. 1
Reason (R): In filtration the solid collects on the filter paper, whereas the liquid passes through it.
- 19 **Assertion:** Milk and water can mix together because milk is a soluble liquid. 1
Reason: Some substances are soluble in water whereas some are insoluble.
- 20 **Assertion (A):** Plants with weak stems that cannot stand upright but spread on ground are called creepers. 1
Reason (R): Plants that take support and climb up are called climbers.

SECTION – B

Q. NO. 21 TO 26 are very short answer questions.

- 21 The given picture shows joint 1 and joint 2. 2
 2. Observe the picture and identify the type of joint found in joint 1 and joint 2.



- 22 Give reason for the following:
- Fish have a streamlined body.
 - A snake does not move in straight line.

1
1

OR

- Metals like iron lose their shine and appear dull after sometime.
 - Water is a universal solvent.
- 23 Differentiate between petals and sepals? (two points) 2
- 24 What are sedimentation and decantation methods of separation? 2
- 25 Draw and label the diagram of a stamen. 2
- 26 Complete the following table: 2

Sr. No.	Vitamins/Minerals	Deficiency diseases	Symptoms
1.	_____	Rickets	_____
2.	Iron	_____	_____

Section C

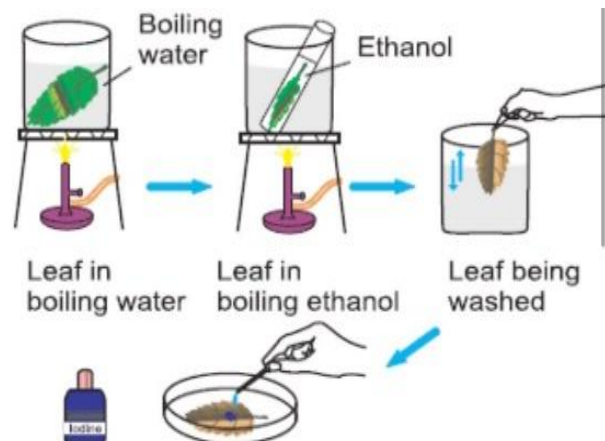
Q no 27 to 33 are short answer questions.

- 27 Hrithik's mother cuts vegetables and then washes them before cooking.
- Is this a good practice? Give reason to support your answer. 1
2
 - Give one advantage and one disadvantage of cooking food. 2
- 28 How do muscles work in pairs to facilitate body movement? 3

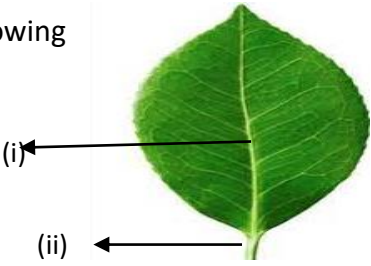
OR

According to the property of hardness, how would you differentiate whether the object is soft or hard? **(two points)** Give one example of each.

- 29 Observe the given picture and answer the following:
- Why is leaf boiled in ethanol?
 - How can one de-starch the leaves?
 - What do you conclude from the given activity?



1
1
1

- 30 State any three function of human skeleton. 3
- 31 What will happen if a person does not take protein in his/her diet for a long time? (three points). 3
- 32 Observe the given structure of a leaf and answer the following questions: 1
- a. Label part (i) and (ii) of the leaf. 2
- b. Write any two functions of a leaf.
- 
- 33 Ankit was having difficulty in seeing things in dim light. The doctor tested his eyesight and prescribed a particular vitamin. 1
- a. What are deficiency diseases? 1
- b. Which deficiency disease is Ankit suffering from? 1
- c. Name the vitamin Ankit lacks in his diet?

Section D

Q. no. 34 to 36 are Long answer questions.

- 34 a. How do transparent and translucent materials differ in their ability to allow light to pass through them? (two points) 2
- b. If you have a choice to hide behind a glass door and a wooden door while playing hide and seek. Which door will you choose and why? 2
- c. Why do you think shopkeepers prefer to store sweets, chocolates, and candies in transparent containers? 1
- OR**
- a. Differentiate between tendons and ligaments. (two points)
- b. What is the role of pivotal joint?
- c. Write two uses of X-ray.
- 35 a. Two different components are mixed together as mentioned below. Name the method of separation in each case that will be used to separate them? 3
- i. Rotten potatoes from fresh ones
- ii. Butter from milk
- iii. Pebbles, stones from sand
- b. How is winnowing different from threshing? 2
- OR**
- a. Given below are some food components. Explain the role of each in our body
- i. Carbohydrates ii. Roughage iii. Vitamin D
- b. Why do doctor advice to take a balanced diet?

- 36 a. Skeleton of the birds is well suited for flying? Explain. (three points) 3
 b. How bristles in earthworm help it in the movement on the ground? 2

OR

- a. Why do we need to separate substances from mixtures? (three points).
 b. What are soluble and insoluble substances?

Section E

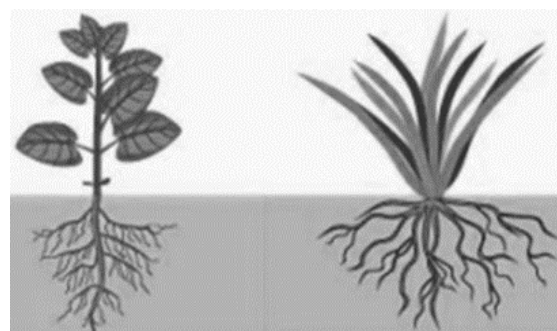
Q. no. 37 to 39 are Case-based / Source-based questions with 2 to 3 sub-parts. Internal choice is provided in one of these sub-parts.

- 37 Sonal and Minal were preparing a sugar solution in science laboratory. Sonal took one teaspoon sugar and half a glass of water, whereas Minal took fifteen teaspoons of sugar and half a glass of water. 1
 a. Name the solute and solvent mentioned in this activity 1
 b. When is a solution called a saturated solution? 1
 c. Who, Sonal or Minal, would be able to prepare a saturated solution and why? 2

OR

- c. How does solubility of a substance depend upon temperature of water?
- 38 While having fun in the garden pool, a young boy noticed something quite remarkable. He saw a flat wooden plank (a flat piece of wood) effortlessly gliding on the water surface. He was excited to study the science behind this fascinating phenomenon. 1
 a. Why did the wooden plank float on water? 1
 b. Why does a cotton ball, which initially float in water, eventually sinks after a few minutes? 1
 c. Which of the following materials will float on water and which will sink in water? 2
 iron nail, plastic ball, ice cube, sand

- 39 In the school garden, the teacher was imparting knowledge about plants to the students. During the lesson, one curious student decided to investigate the relationship between the plant leaves and roots by plucking a small weed from the garden. With the help of that plant teacher explained the relationship between the leaf and root.



A

B

- a. Identify the type of leaf venation in figure A and B respectively. 1
 b. What do you mean by leaf venation? 1
 c. Explain how one can determine the type of root without pulling out its root? 2

OR

- c. Identify the type of root shown in figure A and give one example of a plant that exhibits this particular type of root system.
