



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

ANNUAL EXAMINATION (2025-26)
SCIENCE (SET- I)

Class: VII

Time: 3hours

Date: 21/03/'26

Max Marks: 80

Admission no:

Roll no:

General Instructions:

(i) This question paper consists of 39 questions in 3 sections. Section A is Biology, Section B is Chemistry and Section C is Physics.

(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.

SECTION- A BIOLOGY

1. Which of the following is a green pigment essential for photosynthesis? 1
 - a) Chlorophyll
 - b) Carotene
 - c) Xanthophyll
 - d) Anthocyanin
2. The process by which plants prepare their own food is called: 1
 - a) Respiration
 - b) Photosynthesis
 - c) Transpiration
 - d) Digestion
3. Which of the following is a herbivore? 1
 - a) Lion
 - b) Cow
 - c) Tiger
 - d) Crocodile
4. Which tissue in plants transports water from roots to leaves? 1
 - a) Phloem
 - b) Xylem
 - c) Cambium
 - d) Cortex
5. Which of the following is an example of asexual reproduction in plants? 1
 - a) Pollination
 - b) Budding
 - c) Grafting
 - d) Fertilisation
6. The male reproductive part of a flower is called: 1
 - a) Stigma

- b) Style
 - c) Anther
 - d) Ovary
7. Which of the following transports food in plants? 1
- a) Xylem
 - b) Phloem
 - c) Stomata
 - d) Root hair
8. Which part of the flower produces pollen grains? 1
- a) Ovary
 - b) Anther
 - c) Stigma
 - d) Style

The following two questions consist of two statements – **Assertion (A)** and **Reason (R)**. Answer these questions by 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.**

9. **Assertion (A):** Xylem transports water in plants. 1
Reason (R): Phloem cells carry water from roots to leaves.
10. Define heterotrophic nutrition and give one example. 2
11. Name two ways by which water is lost from plants. 2
12. Students to attempt either option A or B. 3

A. Explain two differences between sexual and asexual reproduction.

OR

B. Explain three methods of asexual reproduction in plants with one example for each.

13. Draw a neat and labelled diagram of the human digestive system and label any four main parts. 3
14. A student noticed that some plants in her garden were growing well in sunlight, while others in the shaded corner were pale and weak. She also observed that the plants in sunlight had green leaves, while the shaded ones looked yellowish.

Answer the following questions: 4

- a) What is the process by which plants make their own food? 1
- b) Name the pigment responsible for this process. 1
- c) Explain why the plants in the shade were pale and weak. 2

OR

C) Suggest two ways to help shaded plants grow better.

15. Explain the process of sexual reproduction in flowering plants. 5

OR

Draw a neat and labelled diagram of a flower showing male and female reproductive parts.

SECTION- B CHEMISTRY

16. Common salt is 1
(a) acidic
(b) basic
(c) neutral
(d) none of these.
17. Sting of an ant contains 1
(a) vinegar
(b) common salt
(c) formic acid
(d) baking soda.
18. Which of the following is an acid-base indicator? 1
(a) Vinegar
(b) Lime water
(c) Turmeric
(d) Baking soda
19. Which of the following is not an inorganic impurity present in sewage? 1
(a) Nitrate
(b) Phosphate
(c) Urea
(d) Metal salt
20. Liquid waste consisting of suspended impurities called as 1
(a) Contaminant
(b) Sewage
(c) Aeration
(d) Chlorination
21. The increasing scarcity of fresh water is due to 1
(a) Population growth
(b) Pollution
(c) Industrial development
(d) All of the above

22. Which of the following groups of organisms feed on dead and decaying organic matter? 1
- (a) Carnivores.
 - (b) Herbivores.
 - (c) Omnivores.
 - (d) Decomposers

The following question consists of two statements – **Assertion (A)** and **Reason (R)**.

Answer these questions by selecting the 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.

23. Assertion: Neutralisation reaction is accompanied by the absorption of heat. 1
Reason: Neutralisation reaction is a reaction between an acid and a base to form salt and water.

24. Define indicators. Give two examples of natural indicators. 2

25. What are organic acids? Give any four examples of organic acids. 3

26. **Attempt either option A or B.** 3

A. Explain in detail the effects of deforestation.

OR

B. Define consumers. Explain three basic levels of consumers

27. Read the following and answer the questions- 4

Prof Akash asked children to pick up leaves from the forest floor and observe them under a hand lens. They found tiny mushrooms over the decaying leaves. They also saw an army of tiny insects, millipedes, ants and beetles on them. They were wondering how these organisms live there. Prof Akash explained that apart from these animals which are easily seen, there are several organisms and micro-organisms that live in the soil. Paheli wondered what mushrooms and other micro-organisms eat. Prof Akash replied that they feed upon the dead plant and animal tissues and convert them into a dark colored substance called humus. The micro-organisms which convert the dead plants and animals to humus are known as decomposers. These micro-organisms play an important role in the forest. Soon, Paheli removed some dead leaves and discovered under them a layer of humus on the forest floor. The presence of humus ensures that the nutrients of the dead plants and animals are released into the soil. From there, these nutrients are again absorbed by the roots of the living plants. “What happens if an animal dies in the forest?” Sheila asked. Tibu replied that the dead animals become food for vultures, crows, jackals and insects.” In this way, the nutrients are cycled. So, nothing goes to waste in a forest.

- (i) Under a.....the children observed the leaves. 1

- (a) Torch
- (b) Microscope
- (c) Hand lens
- (d) Hand

(ii) The nutrients in the soil are absorbed by which part of the plant? 1

- (a) Roots
- (b) Shoot
- (c) Stem
- (d) Leaves

(iii) What are decomposers? 2

OR

(iii) What does the presence of humus ensure?

28. Attempt either option A or B.

5

A. Define wastewater. Explain various sources of wastewater

OR

B. Explain the sewerage system with a labelled diagram.

SECTION-C PHYSICS

29. What is the SI unit of velocity?

- (a) km/s
- (b) m/s
- (c) m/h
- (d) km/h

1

The following question consists of two statements – **Assertion (A)** and **Reason (R)**. Answer these questions by selecting the 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.

30. **Assertion (A):** If a car travels 60 km in 2 hours, its speed is 30 km/h.

Reason (R): Speed is calculated by dividing distance by time.

1

31. **Assertion (A):** When a switch is OFF, the circuit becomes an open circuit.

Reason (R): An open switch breaks the path of electric current.

1

32. Draw the distance-time graph for uniform motion and non uniform motion. 2
33. Why are secondary cells preferred in mobile phones and laptops instead of primary cells? 2

OR

What is an electric circuit? Draw an electric circuit diagram using battery, wire, switch and bulb.

34. What is Shadow? Explain the characteristics of shadow. 2
35. (a). Define acceleration. Write its S.I unit.
(b). A car accelerates from rest to a velocity of 36 km/h in 20 s on a straight road.
Calculate its acceleration in m/s^2 3
36. Draw and label the diagram of the incandescent bulb. Explain its working in detail. 3
37. Differentiate between transparent and translucent objects. Give two examples of each. 3

38. Read the passage below and answer the questions: 4

Rahul noticed that even after inserting new cells, his torch did not glow. On checking carefully, he found that the metal strip inside the torch was broken.

Questions:

- a). What kind of circuit was formed due to the broken metal strip? 1
- b). How does a broken connection affect the flow of electric current? 1
- c). What should Rahul do to make the torch work again? 2
- or
- d). Why did the torch not glow even with new cells?

39. Attempt either option A or B. 5

A. Name the principle on which pinhole camera works. Explain the working of a pinhole camera for a luminous object. Draw a diagram to support your answer.

OR

B. Explain the two types of shadows that can be formed depending on the type of objects. Write the conditions for the formation of shadow.

*****ALL THE BEST*****