



B.K. BIRLA CENTRE FOR EDUCATION

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

TERM-2 (2025-26)
SCIENCE (SET-II)

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 pigment is essential for photosynthesis? 1
 - a) Carotene
 - b) Xanthophyll
 - c) Chlorophyll
 - d) Anthocyanin
2. Plants that depend on other plants for food are called: 1
 - a) Autotrophs
 - b) Insectivorous plants
 - c) Parasitic plants
 - d) Saprotrophs
3. Which part of the digestive system absorbs digested food? 1
 - a) Stomach
 - b) Large intestine
 - c) Small intestine
 - d) Oesophagus
4. Which tissue transports water and minerals from roots to leaves? 1
 - a) Phloem
 - b) Cortex
 - c) Xylem
 - d) Cambium
5. Food prepared by leaves is transported to other parts of the plant by: 1
 - a) Xylem
 - b) Phloem
 - c) Stomata
 - d) Root hairs
6. Which of the following is an example of vegetative propagation? 1
 - a) Seed formation
 - b) Pollination

- c) Growth of potato from an eye
 d) Fertilization
7. The male reproductive part of a flower is called: 1
 a) Pistil
 b) Ovary
 c) Stamen
 d) Sepal
8. Fertilization in plants takes place in the: 1
 a) Anther
 b) Stigma
 c) Style
 d) Ovary

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 helps in the transport of water and minerals from roots to the leaves. 1
Reason (R): Xylem vessels form a continuous network of tubes from roots to leaves.
10. What is photosynthesis? Write the word equation for photosynthesis. 2
11. Name the tissues responsible for transportation in plants. Write one function of each. 2
12. Describe the process of digestion in humans. 3
13. What is asexual reproduction? Explain any two methods of asexual reproduction with examples. 3

OR

Describe vegetative propagation in plants. Mention any two advantages of this method.

14. Riya observed that the plants in her school garden were healthy and green. Her teacher explained that these plants prepare their own food using sunlight, air, and water. However, she also noticed a yellowish, leafless plant growing on a nearby tree. This plant did not prepare its own food and depended entirely on the host plant for nutrition.

- Answer the following questions:** 4
- a) Name the process by which green plants prepare their food. 1
 b) Which pigment helps plants trap sunlight for this process? 1
 c) Identify the type of nutrition shown by the yellowish plant and explain it briefly. 2

OR

- c) Name the plant shown above and write any one harmful effect it has on the host plant.
15. Describe the structure of a flower with the help of a neat, labelled diagram. 5
 (Explain sepals, petals, stamens, and pistil with their functions.)

OR

Explain the process of sexual reproduction in flowering plants.
 (Include pollination, fertilization, and formation of seeds and fruits.)

SECTION- B CHEMISTRY

16. The word acid comes from the Latin word 'acere' which means 1
(a) Sweet
(b) Salty
(c) Sour
(d) Neutral
17. Which of the following is an example of a strong acid? 1
(a) Acetic acid
(b) Formic acid
(c) Nitric acid
(d) Lactic acid
18. Neutralisation reactions form 1
(a) an acid and a bases
(b) an acid and a salt
(c) a salt and water
(d) a salt and a base.
19. Biodegradable wastes are generally 1
(a) Blended
(b) Synthetic
(c) Organic
(d) Inorganic
20. In vermi-processing toilet the human excreta is treated by 1
(a) Redworm
(b) Tapeworm
(c) Earthworm
(d) Roundworm
21. When waste water is passed through bar screens in WWTP , it removes 1
(a) Plastic packets
(b) Sand
(c) Grit
(d) All of the above
22. The large-scale planting of trees on land where there are no forests is known as _____ 1
(a) Deforestation.
(b) Forestry
(c) Depletion
(d) Afforestation.

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: Sugar is a neutral substance. 1

Reason: A sugar solution turns red litmus blue.

24. What is neutralisation? Give an example. 2

25. What are mineral acids? Write the name and chemical formulae of any two mineral acids 3

26. Attempt either option A or B. 3

A. Explain the various steps involved in conservation of forests

OR

B. Define consumers. Explain three basic levels of consumers.

27. **Read the following and answer the questions-** 4

Green plants produce food. All animals, whether herbivores or carnivores, depend ultimately on plants for food. Organisms which feed on plants often get eaten by other organisms and so on. For example, grass is eaten by insects, which in turn is taken by the frog. The frog is consumed by snakes. This is said to form a food chain. Many food chains can be found in the forest. All food chains are linked. If any one food chain is disturbed, it affects other food chains. Every part of the forest is dependent on the other parts. If any one component is removed, all other components would be affected.

(i) In a food chain, the green plants are the: 1

- (a) Producers (b) Consumers (c) Decomposers (d) All of these

(ii) Find the missing part from the food chain: Grass → insects → ----?----- → snake → eagle 1

- (a) Peacock (b) Crow (c) Frog (d) Deer

(iii) What is food chain? 2

OR

(iii) What is a food web?

28. **Attempt either option A or B.** 5

A. Describe wastewater treatment plant with suitable diagram.

OR

- B. i) What are sewers?
ii) What are septic tanks?
iii) Explain the harmful effects that sewage has on the environment.

SECTION-C PHYSICS

29. A boy runs 200 m in 40 seconds. His speed is:

- (a) 5 m/s (b) 4 m/s (c) 6 m/s (d) 8 m/s 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 person walks 5 m east and then 5 m west, the displacement is 10 m.

Reason (R): Displacement is the total path covered. 1

31. **Assertion (A):** A dry cell is a type of primary cell. 1

Reason (R): A dry cell can be recharged many times.:

32. Differentiate between distance and displacement. 2

33. How is a primary cell different from a secondary cell? Name any two devices that use each of these types of cells. 2

OR

Differentiate between conductors and insulators of electricity. List any two examples of each

34. Explain Rectilinear propagation of light with the help of activity. 2

35. Describe three essential safety measures for handling electrical devices. 3

36. (a) The physical quantity that represents the total length of the path travelled by an object
(b).The SI unit of speed..
(c). A car travels at a speed of 60 km/h for 3 hours. Find the distance travelled. 3

37. What are convergent and divergent beams of light? Draw diagrams to support your answer. 3

38. Read the passage below and answer the questions:

Aman was doing his science homework at night. He connected a cell, bulb, and switch with wires to make a simple electric circuit. When he turned the switch ON, the bulb did not glow.

He checked carefully and found that one of the wires was loose and not properly connected. Because of this, the path of electricity was broken. After fixing the wire, the bulb started glowing. Aman understood that when the path of current is broken, it is called an open circuit.

- a). What is an open circuit? 1
- b). Name any two components of the circuit mentioned in the case study. 1
- c). What did Aman do to make the bulb glow? 2

or

d). What will happen if the switch is kept OFF in a circuit?

39. Attempt either option A or B. 5

A. Explain the Dark and faint shadow. Draw and label the ray diagram for formation of shadow

OR

B. Explain the characteristics of an Image Formed by a Pinhole Camera. Draw the ray diagram of pinhole camera.

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