



BK BIRLA CENTRE FOR EDUCATION
SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARY | CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL
MID-TERM EXAMINATION 2024-25
SCIENCE



Class: VIII

Date: 23 /09/'24

Name: _____

Duration: 3 Hrs

Max. Marks: 80

Exam no: _____

General Instructions:

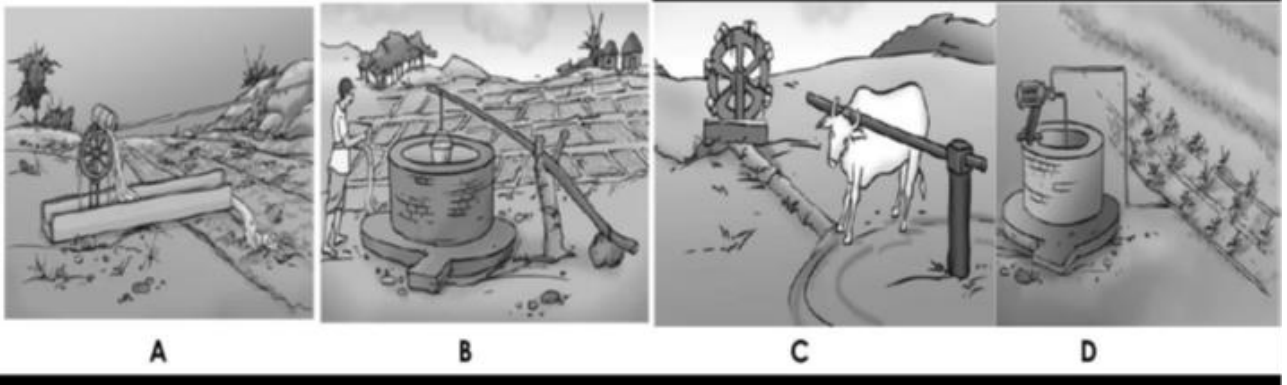
- i. This question paper consists of 39 questions in 5 sections.
- ii. All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.
- iii. Section A consists of 20 objective type questions carrying 1 mark each.
- iv. Section B consists of 6 Very Short questions carrying 02 marks each. Answers to these questions should be in the range of 30 to 50 words.
- v. Section C consists of 7 Short Answer type questions carrying 03 marks each. Answers to these questions should be in the range of 50 to 80 words.
- vi. Section D consists of 3 Long Answer type questions carrying 05 marks each. Answer to these questions should be in the range of 80 to 120 words.
- 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 the most appropriate option out of the four options given for each of the questions 1 - 20. There is no negative mark for incorrect response.

1. Terrywool is an example of _____. 1
(a) Natural fibre (b) Synthetic fibre (c) Blended fibre (d) None of these
2. Which of these is a thermosetting plastic? 1
(a) PVC (b) Bakelite (c) Polythene (d) All of these
3. Single unit of a long chain synthetic fibre is called _____. 1
(a) Polymer (b) Monomer (c) Both (a) and (b) (d) None of these
4. _____ is also called as artificial silk. 1
(a) Nylon (b) Rayon (c) Acrylic (d) Polyester
5. Symbol of an element potassium is: 1
(a) P (b) K (c) Po (d) Pt
6. Which of the following is regarded as the hardest coal? 1
(a) Lignite (b) Peat (c) Anthracite (d) Bitumen

7. It is also known as black gold. 1
 (a) Petrol (b) Coal (c) Petroleum (d) None of these
8. What will be the pressure exerted by a solid if it exerts 500 N of force on an area of 5 m²? 1
 (a) 100 pa (b) 10 pa (c) 10.5 pa (d) None of these
9. Which one of these characteristics does a smooth surface has? 1
 (a) Less frictional force (b) More frictional force
 (c) Sometimes less and sometimes more force (d) All of above
10. Observe the given methods of irrigation and answer the following question 1



Identify the correct statement:

- (a) A, C, and D are the modern methods of irrigation.
 (b) B, C, and D are the traditional methods of irrigation
 (c) A, B, and D are the modern methods of irrigation.
 (d) A, B, and C are the traditional methods of irrigation.
11. Combines are used for: 1
 (a) Sowing of seeds (b) harvesting the crops
 (c) threshing (d) harvesting and threshing both
12. Alina has cold and viral flu for the past 5 days. Her mother gave her antibiotics but she is not recovering. What can be a likely reason for the same? 1
 (a). Antibiotics are used against viral infections.
 (b). Antibiotics are used only against bacterial infections.
 (c). Antibiotics take time to cure the infection.
 (d). Antibiotics are to prevent infections rather than to cure them.

13. A trash can contains the following materials:

1



1. Plastic straw 2. Aluminium foil 3. Apple peels 4. Leather bag 5. Glass bottles 6. Tissue paper

Select the materials that the microorganisms can decompose:

- (a) 1, 3 and 5 (b) 3, 4 and 6 (c) 1, 2 and 5 (d) 4, 5 and 6

14. The heating of milk up to 72° C and suddenly cooling is called_____.

1

- (a) Freezing (b) Preservation (c) steaming (d) Pasteurisation

15. The device used to measure the liquid pressure is:

1

- (a) Manometer (b) odometer (c) speedometer (d) None of these

16. What kind of substances are known as lubricants

1

- (a) Increase friction (b) Decrease friction
(c) Increase or decrease friction (d) None of these

Direction: The question below consists of an Assertion (A) and a Reason (R). Use the following key to choose the appropriate answer.

- (a) If both assertion and reason are correct and reason is correct explanation of the assertion.
(b) If both assertion and reason are correct, but the reason is not the correct explanation of the assertion.
(c) If assertion is correct, but reason is incorrect.
(d) If assertion is incorrect, but reason is correct.

17. **Assertion (A):** We often see that small children are easily able to pull a suitcase fitted with wheels. 1

Reason (R): The rolling of the wheel is able to reduce friction.

18. **Assertion (A):** Synthetic fibres have less water absorbing capacity. 1

Reason (R): They have hollow space in midst of a single fibre.

19. **Assertion (A):** As we move to higher altitudes, breathing can become difficult. 1

Reason (R): At higher altitude there is decrease in the atmospheric pressure.

20. **Assertion (A):** We need to conserve our forest and wildlife 1

Reason (R): Rapid decline in wildlife population and forestry has been observed

Section-B

Question No. 21 to 26 are very short answer questions

21. What is carbonisation? Name the products formed when coal is burnt. 2
22. If wheat is sown in the Kharif season, what would happen? Discuss in brief. 2
23. What are antibiotics? What precautions must be taken while taking antibiotics? 2
24. Define (i) endemic species and (ii) vulnerable species, Give examples each. 2

OR

What is Red Data Book and state its importance?

25. What is contact force? Give two examples of contact force. 2
26. What do you mean by a streamlined shape? How is it useful? 2

Section-C

Question No. 27 to 33 are short answer questions

27. (a) Name any two noble metals. 3
- (b) What do you understand by a displacement reaction? Give one example.
28. What are synthetic fibres? State any two advantages and disadvantages of synthetic fibres. 3

OR

(a) What is polymerisation?

(b) With the help of suitable diagram show the types of polymerisation.

29. Differentiate between- 3
- a) Wildlife sanctuary and biosphere reserve.
- b) Endangered and Extinct Species
30. What is a pathogen? How does it enter the body of living organisms? Why are viruses considered to be on the borderline between living and non-living things? 3
31. (a) What is friction? 3
- (b) What is the cause of friction? How can we minimize it?

32. Give reasons for the following: 3

(a) We use a sharp knife to cut things rather than a blunt knife.

(b) There are wooden/concrete sleepers below railway track.

33. Differentiate between Electrostatic force and Gravitational force. Give one example of each. 3

Section-D

Question No. 34 to 36 are long answer questions.

34. (a) Give reasons for the following: 3

(i) Silver get tarnished on exposure to air.

(ii) Sodium metal is always kept immersed in kerosene oil.

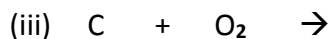
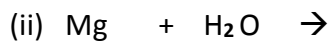
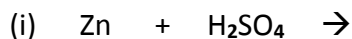
(iii) Aluminium is used for making electrical wires.

(b) Name the colourless gas that evolves when potassium reacts with water. How will you test this gas?

2

OR

(a) Complete the following chemical equations.



(b) What is malleability? Which of them shows malleability -metal or non-metal?

35. Why is the conservation of biodiversity important? Explain the various threats to biodiversity. 5

OR

Why are wildlife sanctuaries important for the conservation of plants and animals? What is project tiger, state its objective? When was it launched?

36. What are ball bearings? How do they work? Explain with the help of a diagram. 5

OR

(a) What are the factors on which the friction depends on.

(b) Write the three advantages of friction.

Section-E

Question No. 37 to 39 are case-based/data -based questions with 2 to 3 short sub-parts. Internal choice is provided in one of these sub-parts. (1+1+2=4)

37. Read the passage carefully and answer the following questions.

The substances which are added to the soil in the form of nutrients for the healthy growth of plants are called manure and fertilisers. Manures are organic substances obtained from the decomposition of dead plants and animal wastes. Fertilisers are man-made mineral salts that are added to the soil to provide specific nutrients like nitrogen, phosphorus, and potassium. Take moong or gram seeds and germinate them. Select three equal-sized seedlings out of these. Take three beakers and mark them A, B, and C. Take some soil in beaker A. To beaker B add some soil mixed with some amount of manure. In beaker C, put some amount of soil mixed with a little urea. Now pour some water and plant seedlings in each of them. Keep them in a safe place and water them daily. Observe the growth for 7-10 days. We will notice that the growth of plants in beaker B is better than others. The growth occurs much faster in beaker C. The use of manure improves soil texture as well as its water-retaining capacity. It replenishes the soil with all the nutrients. The use of fertilisers helps in the fast growth of plants. But they are made from chemicals. The excessive use of fertilisers changes the chemical nature of the soil and makes the soil less fertile. The excessive use of fertilisers causes water pollution in ponds, lakes, and rivers when they enter the lakes and ponds through runoff and soil erosion.

(a) Which beaker will show fast growth of seedlings and why? 1

(b) What is meant by manure? 1

(c) A farmer uses fertilisers on his land for a long period of time and plans to start using manure.

What will be the likely benefit of this change? 2

OR

(c) What are the harmful effects of using excessive fertilisers in the field?

38. Read the passage carefully and answer the following questions.

Nowadays we are very much dependent on fossil fuels. Increase in the use of coal and petroleum has led to difficulties in managing fossil fuels, and now the time is not far when we run on shortage of them. There are many steps taken by the different governments to decrease the consumption of fossil fuels such as promoting natural gases and making it mandatory for all the vehicles or promoting the usage of electric vehicles on subsidised costs. Coal and petroleum are very useful sources. We need to save them so that it gets easier to manage our natural resources. There are many alternatives like solar energy, electric vehicles, etc which are environment friendly. Many countries are trying to replace all the vehicles which run on diesel and petrol with electric vehicles by 2030. Some serious steps need to be taken in order to manage these sources and save our environment.

(a) What type of natural resources are forests and coal? 1

(b) Which of the following is not a fossil fuel? 1

(i) Kerosene (ii) Coal tar (iii) Water (iv) Petrol

(c) What is the full form of CNG? Explain how the use of CNG in automobiles has reduced pollution in our cities. 2

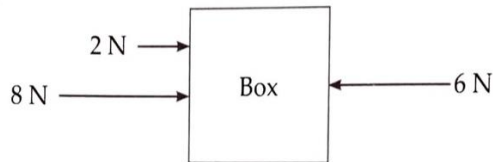
OR

(c) Name the two fossil fuels other than petroleum.

39. Read the passage carefully and answer the following questions.

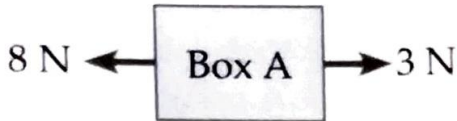
Two or more forces acting on an object are said to be balanced forces if the net effect produced by all of them on the object is zero. The balanced forces do not change the state of the body. However, if one team applies more amount of force than the other team, the rope starts moving towards the direction of team with greater force. Here, the net effect produced by forces changes the direction of motion of rope. In that case, the forces are said to be unbalanced forces. If the net effect produced by two or more forces on an object is not zero, then the forces are said to be unbalanced forces. The unbalanced forces change the state of the body.

- (a) Define Balanced force. 1
- (b) If two unbalanced forces act on the rope, in which direction would the rope move. Write one effect of unbalanced force. 1
- (c) Calculate the net force on the box given below. 2



OR

- (c) Calculate the net force on the box given below.



*******Best of Luck*******