



PRE-MIDTERM (2023 - 24)

Class: VIII
Date: 28-05-2023

Sub: SCIENCE (086)
Set - I

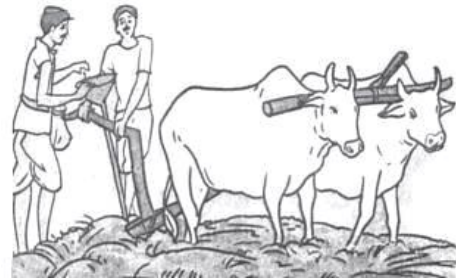
Max Marks: 30
Time: 1 hour

General Instructions:

- i. All questions are compulsory. Marks are indicated against each section.
- ii. The question paper comprises of 4 pages and 15 questions in 5 sections A, B, C, D and E.
- iii. Q 1 to Q 4 in section A -MCQ carry ONE mark each. Write the correct answer along with option only in the answer script .
- iv. Q 5 to Q 7 in section A -Assertion and Reason carry ONE mark each.
- v. Q 8 to Q 10 in section B are short Answer Type Questions and carry TWO marks each .
- vi. Q 11 TO Q 13 in section C are Short Answer Type Questions and carry THREE marks each .
- vii. Q 14 in section D are Long Answer Type Questions and carry FIVE marks each.
- viii. Q 15 in section E Case study / paragraph Questions carry THREE marks each.
- ix. Write the same question number as given in the question paper.
- x. Ink killer or whitener should not be used in the answer script .
- xi. Diagrams should be drawn using pencil.

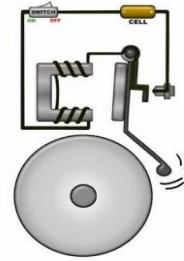
SECTION A (7X1=7)

1. The given figure represents an agricultural tool.
Which of the following functions is performed by the tool in the given figure?



- a) Sowing
 - b) Ploughing
 - c) Mulching
 - d) Manuring
2. Which of these is not a property of plastics?
- a) bad conductor of heat
 - b) bad conductor of electricity
 - c) non-reactive
 - d) soluble in water

3. In the circuit shown in figure, when the circuit is completed, the hammer strikes the gong.
Which of the following force is responsible for the movement of hammer?



- a) Gravitational force alone
 - b) Electrostatic force alone
 - c) Magnetic force alone
 - d) Frictional force alone
4. Varun studies four situations involving forces. The situations are: In which situation motion is caused by the application of contact force.
- i) A satellite orbiting the earth.
 - ii) A magnet attracting the paper clips.
 - iii) A man hitting a cricket ball with a bat.
 - iv) A magnet repelling another magnet.

In which situation motion is caused by the application of contact force.

- a) Only a
- b) Only b
- c) Only c
- d) Both a and c

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below

- i) Both A and R are true and R is the correct explanation of the assertion.**
- ii) Both A and R are true but R is not the correct explanation of the assertion.**
- iii) A is true but R is false.**
- iv) A is false but R is true**

5. Assertion (A): In summer, the frequency of watering the plants is very high.

Reason (R): it is due to the increased rate of evaporation of water from the soil and the leaves.

6. Assertion (A):. Acrylic fibres are used in making socks and shawls.

Reason (R): Acrylic fibres are a replacement for woolen fibres. It is cheaper and can be dyed in different colours.

7. Assertion (A): Water begins to flow towards the ground as soon as we open a tap.
Reason (R): It is because of the force of gravity, which makes things/objects fall towards the earth as it pulls them.

SECTION B (3X2=6)

8. a) Two beakers with equal amounts of water are taken. Equal pieces of cotton and polyester fabrics are soaked into two beakers. Both the fabrics are then dried in the sunlight. Which fabric will take less time to dry? Give reasons.
b) Why certain colouring agents are used during recycling of thermoplastics?
9. a) Chemicals are stored in plastic containers. Give the reason.
b) Draw diagrams to show linear and cross-linked polymerisation in synthetic fibres.
10. a) What two effects of force can the action shown alongside in the figure bring out?
b) Write one-point difference between balance and unbalanced forces.



SECTION C (3X3=9)

11. a) An inflated balloon was pressed against a wall after it had been rubbed with a piece of synthetic cloth. It was found that the balloon stuck to the wall. Which force might be responsible for the attraction between the balloon and the wall? Explain the force.
b) Two forces 500N and 300N acting on a body in opposite direction. What is the net force?
c) A rocket has been fired upwards to launch a satellite in its orbit. Name the two forces acting on the rocket immediately after leaving the launching pad.
12. a) It is necessary to loosen the soil by ploughing before sowing seeds. Why is it necessary to level the soil after ploughing?
b) What method of irrigation will you use if you live in a dry area with a shortage of water? Explain the method.

13. a) Bakelite and polythene are both plastics. However, there is one major difference in their nature. What is the difference?
- b) While testing the strength of synthetic fibre Karan was able to hang 6kg weight on a single artificial thread. Identify this strong fibre and mention its two properties and two uses.

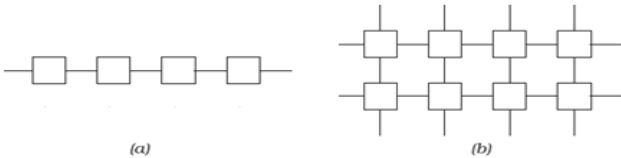
SECTION D (1X5=5)

14. a) After harvesting his bountiful crop, a farmer was so happy that he forgot to dry the crop before storing it. What problems can he face?
- b) i) Name the tool used with a tractor for sowing seeds in a field.
- ii) What are the advantages of using this tool?
- c) Explain how soil gets affected by the continuous plantation of crops in a field.

SECTION E (1+1+1=3)

15. In order to provide food to our growing population, we need to adopt certain agricultural practices. The same kind of plants grown and cultivated at a place constitutes a crop. In India, crops can be broadly categorised into two types based on seasons - rabi and kharif crops. It is necessary to prepare soil by tilling and levelling. Sowing seeds at appropriate depths and distances gives good yield. A good variety of seeds are sown after selection of healthy seeds. Soil needs replenishment and enrichment using organic manure and fertilisers. Use of chemical fertilisers has increased tremendously with the introduction of new crop varieties. Rakesh Singh is a farmer who switched from traditional to modern farming practices in which he used large amounts of fertilisers and pesticides to gain an increase in profit. The environmentalists of that area suggested using alternative methods to replenish the soil like field fallow, (leaving the land without cultivation), crop rotation (the practice of growing a series of different types of crops in the same area across a sequence of growing seasons) or organic farming to save the environment.
- a) How are crops categorized based on seasons? Mention one-point difference between them.
- b) What is meant by crop rotation?
- c) Give one advantage and one disadvantage of using fertilisers.

MARKING SCHEME

SECTION A (7X1=7)								
1	a) Sowing	1						
2	d) soluble in water	1						
3	c) Magnetic force alone	1						
4	c) Only iii	1						
5	<i>i) Both A and R are true and R is the correct explanation of the assertion.</i>	1						
6	<i>i) Both A and R are true and R is the correct explanation of the assertion.</i>	1						
7	<i>i) Both A and R are true and R is the correct explanation of the assertion.</i>	1						
SECTION B(3X2=6)								
8	a) Polyester because it absorbs less water) b) during recycling certain colouring agents are added. This limits its usage especially for storage of food	1+ 1						
9	a) Plastic bottles are commonly used to store chemicals in a chemistry laboratory because plastics are non-reactive that is they don't react with other substances/ chemicals. b) 	1+ 1						
10	a) Change in speed, change in direction. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><u>Balanced Forces</u></th> <th style="text-align: center;"><u>Unbalanced Forces</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">The forces are equal in magnitude</td> <td style="text-align: center;">The forces are unequal in magnitude</td> </tr> <tr> <td style="text-align: center;">It does not cause any change in the state of motion of the object.</td> <td style="text-align: center;">Causes change in the state of motion of the object.</td> </tr> </tbody> </table>	<u>Balanced Forces</u>	<u>Unbalanced Forces</u>	The forces are equal in magnitude	The forces are unequal in magnitude	It does not cause any change in the state of motion of the object.	Causes change in the state of motion of the object.	1/2+ 1/2 1/2+ 1/2
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SECTION C(3X3=9)		
11	<p>a) When an inflated balloon rubbed with a piece of synthetic cloth, it becomes charged. A charged body attracts an uncharged body. When this charged balloon is pressed against a wall, it sticks to the wall. Thus, the electrostatic force acts between the charged balloon and the wall.</p> <p>b) When two or more forces act in the same direction, the net force or the resultant force is the sum of the two forces i.e., $500\text{ N} + 300\text{ N} = 800\text{ N}$</p> <p>c) The force of gravity is the one which acts on the rocket to pull it towards the ground and the other one is the force of friction due to earth's atmosphere, which opposes its motion.</p>	1+ 1+ 1
12	<p>a) The ploughed field may have big pieces of soil called crumbs. The process of breaking the big lumps of soil with a plank (leveler) is called levelling.</p> <p>b) <u>Sprinkler irrigation system</u>: This irrigation system has an arrangement of vertical pipes with rotating nozzles on the top. It is more useful in uneven and sandy land where sufficient water is not available.</p>	1+ 2
13	<p>a) Bakelite -thermosetting- Thermosetting plastic cannot be bent easily. It may break when forced to bend. Polythene-thermoplastic- Thermoplastic can be softened easily by heating. Thus, it can be reshaped.</p> <p>b) Nylon fibres are strong, elastic and light. It is lustrous and easy to wash. So, it became very popular for making clothes, ropes ,parachutes.</p>	1+ 2
14	<p>SECTION D</p> <p>a) The drying of crops is essential to prevent the growth of microbes. The farmer in the given case, has not dried the crop and thus, his crops will have high amount of moisture. This high moisture will lead to the growth of microbes and consequently, food grains will be spoilt during storage.</p> <p>b) The tool used for sowing seeds by a tractor is called a seed drill. A seed drill is a modern seed sowing tool. The seed drill is attached to the back of the tractor and has multiple pores on it. The tool is dragged along the soil and the seeds fall on the soil at equal distances.</p> <p>c) Continuous plantation of crops makes the soil poorer in certain nutrients as the crops take up nutrients from the soil. The soil becomes infertile. It does not get enough time to replenish the nutrients.</p>	2+ 2+ 1
15	<p>SECTION E</p> <p>a) Kharif: Crops sown in the rainy season (June) and harvested in October are known as Kharif crops. Examples - rice, maize, soybean etc.</p> <p>Rabi: Crops grown in the winter season or planted in November and harvested in April are known as rabi crops. Examples - wheat, pea etc.</p>	1+ 1+ 1

	<p>b) The method of growing crops alternatively on the same land is known as crop rotation. E.g.-Legumes (peas, beans, grams, and pulses) are grown in the first season and wheat should be grown next to it. It is helpful because- the land gets utilised in a better way, soil fertility is maintained, and a farmer has a variety of crops for selling.</p> <p>c) Advantage- Fertilizers provide crops with nutrients like potassium, phosphorus, and nitrogen, which allow crops to grow bigger, faster, and to produce more food.</p> <p>Disadvantage- Adversely affects the soil and the plant if supplied in large quantities.</p>	
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