

FIRST TERM MODEL QUESTION PAPER 2024 WITH ANSWER KEY SET 1

SOCIAL SCIENCE - Standard VII

Time: 2 hours

(Prepared by www.educationobserver.com)

Activity 1: Seed Selection and Plant Growth

Hint: Seeds play a crucial role in agriculture, and selecting the best seeds ensures better crop yield.

1. Why is it important to select seeds from healthy plants?
 2. What characteristics should seeds have for better germination?
 3. Explain why seeds from ripened fruits are preferred for planting.
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Activity 2: Vegetative Propagation

Hint: Vegetative propagation allows plants to reproduce without seeds.

1. What is vegetative propagation?
 2. Name two plants that can reproduce through vegetative propagation.
 3. How does layering help in producing new plants?
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Activity 3: Grafting and Layering Techniques

Hint: Grafting and layering are methods used to combine the best qualities of different plants.

1. What is grafting, and why is it used in agriculture?
 2. Describe the process of air layering in a guava plant.
 3. What are the advantages of plants produced through grafting?
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Activity 4: Fertilizers and Pest Control

Hint: Proper use of fertilizers and pest control methods are essential for healthy plant growth.

1. What is the difference between organic and chemical fertilizers?
 2. Why is pest control important in agriculture?
 3. Name two biological methods of pest control.
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Activity 5: Acids and Bases in Daily Life

Hint: Acids and bases are commonly found in many household items.

1. What is the taste associated with acids? Give an example of an acidic food item.

2. How can you identify a base using litmus paper?
 3. Explain why turmeric can be used as an indicator for bases.
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Activity 6: Electricity and Circuits

Hint: Understanding electricity and how circuits work is fundamental in everyday life.

1. What is a closed circuit?
 2. Why are switches important in an electric circuit?
 3. Describe how a simple circuit can be used to light up an LED.
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Activity 7: Conductors and Insulators

Hint: Some materials allow electricity to pass through them, while others do not.

1. What are conductors? Give two examples.
 2. Explain why plastic is used as an insulator in electric wires.
 3. How can you test if a material is a conductor or an insulator?
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Activity 8: Renewable Energy Sources

Hint: Renewable energy sources are vital for a sustainable future.

1. Name two renewable energy sources used to generate electricity.
 2. How do solar panels convert sunlight into electricity?
 3. Why is it important to conserve electricity?
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This question paper is designed to test students' understanding of key concepts in science, encouraging them to think critically and apply their knowledge in different scenarios.

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You said:

prepare answer key also

ChatGPT said:

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Here's the detailed answer key for the question paper:

Answer Key - 7th Standard Science First Term Examination

Activity 1: Seed Selection and Plant Growth

1. Why is it important to select seeds from healthy plants?
Answer: Selecting seeds from healthy plants ensures that the seeds are free from diseases and pests, leading to a better chance of successful germination and healthy crop growth.
 2. What characteristics should seeds have for better germination?
Answer: Seeds should be plump, mature, and free from any visible damage or defects. They should also be dry and well-formed to ensure better germination.
 3. Explain why seeds from ripened fruits are preferred for planting.
Answer: Seeds from ripened fruits are fully developed and have the best chance of germination. They contain all the necessary nutrients and are more likely to produce strong and healthy plants.
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Activity 2: Vegetative Propagation

1. What is vegetative propagation?
Answer: Vegetative propagation is a method of plant reproduction that involves growing new plants from the vegetative parts of a plant, such as stems, roots, or leaves, rather than seeds.
 2. Name two plants that can reproduce through vegetative propagation.
Answer: Two examples of plants that can reproduce through vegetative propagation are potatoes (using tubers) and roses (using stem cuttings).
 3. How does layering help in producing new plants?
Answer: In layering, a stem of the parent plant is bent to the ground and covered with soil. The covered part develops roots, and once it has rooted well, it can be cut off from the parent plant to grow as a new independent plant.
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Activity 3: Grafting and Layering Techniques

1. What is grafting, and why is it used in agriculture?
Answer: Grafting is a technique where the stem of one plant is joined to the rootstock of another plant. It is used to combine the desirable characteristics of both plants, such as disease resistance and high yield.
 2. Describe the process of air layering in a guava plant.
Answer: In air layering, a portion of a guava plant's stem is wounded and covered with moist soil or moss. The area is then wrapped in plastic to retain moisture. After a few weeks, roots form at the wound site, and the stem can be cut below the roots to grow as a new plant.
 3. What are the advantages of plants produced through grafting?
Answer: Plants produced through grafting often combine the best traits of both parent plants, such as improved disease resistance, better fruit quality, and faster growth. They can also adapt better to different soil and climatic conditions.
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Activity 4: Fertilizers and Pest Control

1. What is the difference between organic and chemical fertilizers?
Answer: Organic fertilizers are made from natural materials like compost, manure, or

bone meal, while chemical fertilizers are synthetic and manufactured using chemicals. Organic fertilizers improve soil structure and fertility over time, while chemical fertilizers provide immediate nutrients to plants but may harm soil health in the long term.

2. Why is pest control important in agriculture?

Answer: Pest control is important to protect crops from insects, rodents, and other pests that can damage plants and reduce yield. Effective pest control ensures healthy crop growth and prevents economic losses for farmers.

3. Name two biological methods of pest control.

Answer: Two biological methods of pest control are using natural predators (like ladybugs to control aphids) and introducing parasitic wasps that lay eggs inside pest insects, eventually killing them.

Activity 5: Acids and Bases in Daily Life

1. What is the taste associated with acids? Give an example of an acidic food item.

Answer: Acids generally have a sour taste. An example of an acidic food item is lemon, which contains citric acid.

2. How can you identify a base using litmus paper?

Answer: A base can be identified using litmus paper by turning red litmus paper blue. This color change indicates the presence of a base.

3. Explain why turmeric can be used as an indicator for bases.

Answer: Turmeric can be used as an indicator because it changes color in the presence of a base. It turns from yellow to reddish-brown when it comes in contact with a basic substance, helping to identify the nature of the solution.

Activity 6: Electricity and Circuits

1. What is a closed circuit?

Answer: A closed circuit is a complete electrical connection around which current flows or circulates. It means that the electrical path is uninterrupted, allowing electricity to move from the power source through the circuit components and back.

2. Why are switches important in an electric circuit?

Answer: Switches are important because they control the flow of electricity in a circuit. They can open or close the circuit, turning devices on or off.

3. Describe how a simple circuit can be used to light up an LED.

Answer: A simple circuit to light up an LED includes a power source (like a battery), connecting wires, and the LED itself. When the circuit is closed, electricity flows from the battery, through the LED, causing it to emit light.

Activity 7: Conductors and Insulators

1. What are conductors? Give two examples.

Answer: Conductors are materials that allow electricity to flow through them easily. Two examples of conductors are copper and aluminum.

2. Explain why plastic is used as an insulator in electric wires.
Answer: Plastic is used as an insulator in electric wires because it does not conduct electricity, making it safe to handle the wires and preventing electrical shocks or short circuits.
 3. How can you test if a material is a conductor or an insulator?
Answer: You can test if a material is a conductor or an insulator by connecting it to a simple circuit with a battery and a light bulb. If the bulb lights up, the material is a conductor. If the bulb doesn't light up, the material is an insulator.
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Activity 8: Renewable Energy Sources

1. Name two renewable energy sources used to generate electricity.
Answer: Two renewable energy sources used to generate electricity are solar energy (using solar panels) and wind energy (using wind turbines).
2. How do solar panels convert sunlight into electricity?
Answer: Solar panels convert sunlight into electricity through photovoltaic cells, which absorb sunlight and generate a flow of electrons, creating an electric current.
3. Why is it important to conserve electricity?
Answer: It is important to conserve electricity to reduce energy consumption, lower utility bills, and minimize environmental impact. Conservation also helps to extend the lifespan of natural resources and reduce the carbon footprint.