



INDIAN SCHOOL SOHAR
TERM I EXAMINATION (2022-23)

CLASS: VII

SUBJECT: SCIENCE

TIME: 2 HOURS

DATE: 20/09/2022

MAX. MARKS: 40

General Instructions:

The question paper comprises of four sections A, B, C and D. There are 21 questions in the question paper. All questions are compulsory.

- (i) Section-A: Question no. 1 to 8 are of one mark each. These questions are very short answer questions and assertion-reason type questions.
- (ii) Section-B: Question no. 9 to 15 are competency-based questions consisting of multiple choice questions of one mark each and case-based questions of 4 marks each.
- (iii) Section-C: Question no. 16 and 17 are short answer type questions, carrying 2 marks each.
- (iv) Section-D: Question no. 18 to 21 are long answer type I questions, carrying 3 marks each.
- (v) There is no overall choice. However, internal choices have been provided in some questions. Students have to attempt only one of the alternatives in such questions.

Section-A

Answer the following questions in one word /one sentence.

1. Mohit mixed one litre of water at 60°C with one litre of water at the same temperature. What will be the temperature of the mixture?

OR

- Which bacteria in the soil can convert atmospheric nitrogen into a usable form? 1
- 2. State the role of fungi in symbiotic relationship with algae. 1
- 3. Name the process of depositing a layer of zinc on iron to prevent rusting. 1
- 4. Riya has two solutions labeled 'A' and 'B'. On adding phenolphthalein to each of them, solution 'A' gives a pink colour, and solution 'B' remains colourless. What is the nature of 'A' and 'B'?

OR

- What is the function of finger-like outgrowths present in the small intestine of humans? 1
- 5. The stages involved in the life history of the silk moth are given below in a jumbled order. Arrange them in proper sequence. 1
- Pupa, Larvae, Adult moth, Eggs

Question No.6 to Question No. 8 are assertion and reason type questions.

In the following questions, a statement of assertion (A) followed by reason (R) is given. Choose the correct option from the following:

- 6. Assertion (A): The host in the parasitic mode of nutrition is always a green plant.
Reason (R): Non-green plants that derive their nutrition from another plant is called a parasite. 1
- 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 and (R) is false.
- d) (A) is false and (R) is true.

7. Assertion (A): Litmus paper does not show any colour change in pure water.
Reason (R): Neutral substances change the colour of red or blue litmus paper.
- 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 and (R) is false.
 - d) (A) is false and (R) is true.

OR

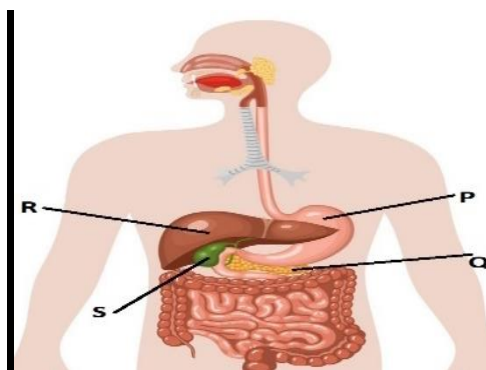
- Assertion (A): Pitcher plant is also called a partial heterotroph.
Reason (R): The pitcher plant has modified leaves in the form of pitchers. 1
- a) Both (A) and (R) are true and (R) is the correct explanation of (A).
 - b) Both (A) and (R) are true and (R) is not the correct explanation of (A).
 - c) (A) is true and (R) is false.
 - d) (A) is false and (R) is true.

8. Assertion (A): Windows of the houses in coastal areas are made to face the sea.
Reason (R): Sea breeze keeps the houses cool during day time. 1
- 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 and (R) is false.
 - d) (A) is false and (R) is true.

Section-B

Choose the most appropriate answer from the following options:

9. If we mix both vinegar and baking soda, we would hear a hissing sound and see bubbles of a gas coming out. Which of the following is **NOT** the property of gas released during the experiment? 1
- a) The gas released during the experiment is used as a fire extinguisher.
 - b) The gas released during the experiment can turn lime water milky.
 - c) The gas released during the experiment is a major cause of global warming.
 - d) The gas released during the experiment can help the process of burning.
10. One day Riya forgot to clean her tiffin box after coming home. After two days when she opened the tiffin box, she found some fluffy patches on the leftover pieces of food. She wanted to know the climatic conditions required for these organisms to germinate and grow. Help Riya to know the conditions. 1
- a) Hot and humid
 - b) Hot and dry
 - c) Very hot and cool
 - d) Cool and dry
11. Saman has a beautiful garden at home. He collected a few China rose flowers and prepared an indicator. He added the indicator to both lemon juice and lime water. Select his observation from the following: 1
- a) China rose solution turns lemon juice to magenta and lime water to blue.
 - b) China rose solution turns lemon juice to magenta and lime water to green.
 - c) China rose solution turns lemon juice to green and lime water to magenta.
 - d) China rose solution turns lemon juice to red and lime water to blue.
12. The given figure illustrates the human digestive system. Which labeled part of the digestive system stores bile juice? 1



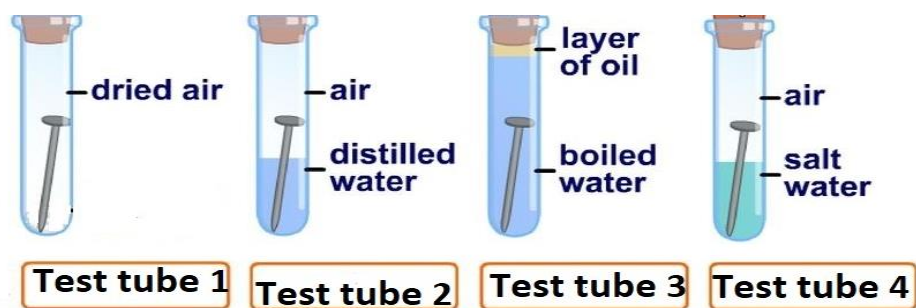
- a) Q b) S c) P d) R

13. Tarnish is a thin layer of corrosion that forms on the outermost layer of metal as it undergoes a chemical reaction. Copper reacts with moist carbon dioxide in the air to form copper carbonate, and the shiny brown surface of the copper vessel is covered by green layer of copper carbonate. You must have seen tarnished copper vessels being cleaned with lemon or tamarind juice. This is due to the fact that copper carbonate is basic in nature, which reacts with the acid present in lemon or tamarind to form a salt that is washed away with water. As a result, tarnished copper vessels are washed with lemon or tamarind juice to restore their lustre.

Source: Greenmatters.com

- i. What is the word formula for the green layer of tarnished copper? 1
 a) Copper Sulphate b) Copper Nitrate c) Copper Chloride d) Copper Carbonate
- ii. Which of the following chemical can be used to remove the outer layer of tarnished copper? 1
 a) Sodium Hydroxide b) Hydrochloric acid c) Ammonium hydroxide d) Milk of magnesia
- iii. Analyse the following statements related to the tarnishing of metals. Choose the correct one: 1
 a) Tarnishing of metal is a physical change.
 b) Tarnishing of metal is an example of a neutralization reaction.
 c) Tarnishing of metal is a chemical change.
 d) Tarnishing of metal is an example of displacement reaction.
- iv. Identify the products formed in a neutralization reaction. 1
 a) Salt and Oxygen b) Salt and Carbon dioxide c) Salt and Hydrogen d) Salt and water

14. Piyush was performing an investigation to know the process of rusting. He placed iron nails in test tubes labeled 1,2,3 and 4 to create four different conditions for rusting as shown in the figure below. He left the experimental setup as such for a few days. Study the experimental setup given below and answer the following questions:



- i) Piyush could not find the formation of rust in test tube 1. Point out the reason. 1
- ii) Identify the test tube in which the iron nail rusted the most. Justify your answer. 1
- iii) a) What will happen to the iron nail in test tube 3. Explain
- b) Write the word equation for the process of rusting. 2

15. The thermometer is an instrument for measuring the temperature of a system. Temperature measurement is important in manufacturing, scientific research, and medical practice. Liquid thermometers were once the most common type in use. They were simple, inexpensive, long-lasting, and able to measure a wide temperature span. The liquid was almost always mercury or coloured alcohol, sealed in a glass tube. In the early 21st century, mercury thermometers were replaced by electronic digital thermometers, which were more accurate and did not contain toxic mercury.

- i) State one advantage of an electronic digital thermometer over a clinical thermometer. 1
- ii) Priya wanted to find out the boiling point of water in lab. Suggest the thermometer that can be used for recording temperature. 1
- iii) Suggest two precautions to be taken while using a thermometer in the lab. 2

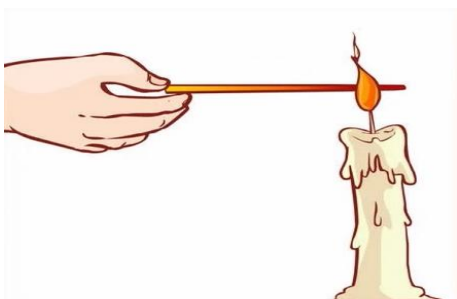
Section-C

16. Is the burning of magnesium ribbon in air a physical or chemical change? Justify your answer.

OR

Draw a neat diagram of open stomata and label the parts. 2

17. Observe the figure given below and identify the mode of heat transfer for the figures 'A' and 'B'. Give one point of difference between these modes of heat transfer. 2



A



B

Section-D

18. Seema is doing an activity to test the presence of starch in boiled rice and chewed rice.

- i) What happens when iodine solution is added to boiled rice?
- ii) Why chewed rice does not change its colour when we put iodine solution?
- iii) What does the presence of starch in leaves indicate?

OR

Write the chemical composition for the following:

- i) Calamine solution ii) Slaked lime iii) Milk of magnesia 3

19. Give reason:

i) Stainless steel pans are usually provided with copper bottoms.

ii) Light-coloured clothes are preferred in summer.

iii) The handles of cooking utensils are made of wood or plastic. 3

20. Wool comes from sheep, goats, yak, and some other animals. For obtaining wool, sheep are reared.

Write the steps involved in processing fibres into wool. 3

21. Sameer was performing one experiment in the science lab. There was one beaker with a blue colour solution. He put one iron pin, which was kept close to the beaker, to the solution. After half an hour, he observed some changes in both the solution and iron pin.

i) What is the chemical name of the blue colour solution present in the beaker?

ii) Why did the blue colour solution change to green colour after half an hour?

iii) Express the activity performed by Sameer in the form of a word equation.

OR

Digestion is the breakdown of complex components of food into simpler substances. What are the end products of digestion for the following components of food?

i) Fats ii) Carbohydrates iii) Protein

3
