विद्या सर्वार्थि साधिका

ANANDALAYA

PERIODIC TEST – 3

Class : VII

Subject: Science MM : 30

Date : 05-01-2023 Time: 1 Hr 30 min.

General Instructions:

1. There are 15 questions in this question paper. All questions are compulsory.
2. Q. No. 1 to 6 are objective type questions and carry 1 mark each.
3. Q. No. 7 to 11 are short answer questions and carry 2 mark each.
4. Q. No. 12 to 14 are also short answer questions and carry 3 marks each.
5. Q. No. 15 is a long answer question and carries 5 marks.

1. Write any two factors on which the amount of heat produced in a wire depends on. (1)

2. Calculate the time period of a simple pendulum which takes 48 seconds to complete 30 oscillations. (1)

3. For this question, two statements are given- one labelled **Assertion and** the other labelled **Reason.** Select the correct answer to this question from the codes (A), (B), (C)and (D) as given below: (1)
   (A) Both assertion and reason are true, and reason is the correct explanation of the assertion.
   (B) Both assertion and reason are true, and reason is not the correct explanation of the assertion.
   (C) Assertion is true, but Reason is false.
   (D) Assertion is false, but Reason is true.
   Assertion: While connecting two cells, the negative terminal of one cell is connected to the positive terminal of another cell.
   Reason: Two cells can be connected in series or in parallel to each other in an electrical circuit.

4. Which of the following statements is an example of a neutralization reaction? (1)
   (A) Addition of litmus solution to sulphuric acid
   (B) Addition of litmus solution to baking soda
   (C) Applying of quick lime to basic soil
   (D) Applying magnesium hydroxide on ant bite

5. Bryophyllum reproduces through its _____ (1)
   (A) leaf buds (B) roots
   (C) stem tuber (D) aerial buds

6. Choose the organism that reproduces through fragmentation: (1)
   (A) Amoeba (B) Fern
   (C) Hydra (D) Spirogyra

7. Write any two differences between the filament of a bulb and the element of an electric heater. (2)

8. Nihar was watching TV in his house, and suddenly electricity went off only in his house. Nihar's father checked the fuse wire and found that it was broken. He replaced the broken fuse wire with a piece of copper wire. After an hour again electricity went off and he found that the fuse wire was broken. (2)
(a) Why did the fuse wire break again?
(b) Mention any two properties of a fuse wire used in domestic circuits.

9. Choose the acidic, basic and neutral salts from the following: (2)
Sodium chloride, Sodium carbonate, Sodium sulphate, Ammonium chloride

10. (a) A knife, which is used to cut a fruit, was immediately dipped into water containing drops of blue litmus solution. If the colour of the solution is changed to red, what inference can be drawn about the nature of the fruit and why? (2)
(b) A few drops of phenolphthalein indicator were added to an unknown solution A. It acquired pink colour. Now another unknown solution B was added to it drop by drop and the solution becomes colourless. Predict the nature of A & B.

11. Ank and Shreya want to prepare dilute sulphuric acid. Ank added concentrated sulphuric acid to water slowly with constant stirring and cooling whereas, Shreya added water to concentrated sulphuric acid. Name the student who was correct and why? (2)

12. (a) Plot the distance-time graph for a moving vehicle in your answer sheet using the table given below. (3)
(b) What type of motion is shown by the vehicle?

Sr. No.	Distance (m)	Time (s)
A	100	7
B	200	14
C	300	21
D	400	28
E	500	35

13. You have been provided with three test-tubes. One of these test-tubes contains distilled water and the other two contain an acidic and a basic solution respectively. If you are given only blue litmus paper, how will you identify the contents of each test-tube? (3)

14. Define the term fertilization. How does fertilization take place in flowering plants? (3)

15. (a) Draw a bisexual flower and label the following parts in it. (5)
(i) The structure that protects the flower in bud condition.
(ii) The structure in which pollen grains are produced.
(iii) The structure that connects the ovary with stigma.
(b) Explain any two modes of seed dispersal with examples and the structures that help in such dispersal.