



INDIAN SCHOOL DARSAIT
HALF YEARLY EXAMINATION, SEPTEMBER-2017
SAMPLE QUESTION PAPER-I
SCIENCE

CLASS: VII

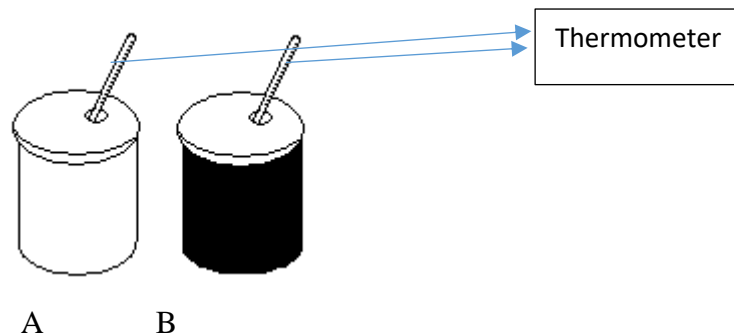
Max. Marks: 80

Time: 3 hours

General Instructions:

- (i) All questions are compulsory.
- (ii) Marks for each question are indicated against it.
- (iii) Questions **1** and **2** are very short answer questions and carry **1** mark each.
- (iv) Questions **3** to **11** are short answer questions and carry **2** marks each.
- (v) Questions **12** to **20** are long answer questions and carry **3** marks each.
- (vi) **Question number 21 is a value based question of three marks.**
- (vii) Question number **22** to **27** are long answer questions and carry **5** marks each.

- | | | |
|---|--|---|
| 1 | Which is the bacterium that can take atmospheric nitrogen and convert it into a soluble form? | 1 |
| 2 | Name the device used to measure the distance moved by the vehicle | 1 |
| 3 | A simple pendulum takes 52 s to complete 30 oscillations. Calculate the time period of the pendulum. | 2 |
| 4 | Name the elements that determine the weather at a place. | 2 |
| 5 | How do you test the presence of starch in leaves? | 2 |
| 6 | Cold water is taken in two identical tin cans. One is painted white and the other one painted black. | 2 |



- (a) What do you observe on keeping the cans in the sun for 15 minutes?
Give reason for your answer.
- (b) Give practical application of this principle.

- 7 (a) A little of the soil sample is heated in a boiling tube. What do you observe? 2
Give reason for your answer.
(b) Rahul noted that 40 minutes are taken for 400 ml of water to percolate through a soil sample. Calculate the rate of percolation.

- 8 You are provided with two test tubes A and B with two different liquids. 2
A- Soap solution B- Lemon juice



What would you observe

- (i) when a piece of red litmus paper is dipped in each test tube?
(ii) When few drops of china rose solution is added to each test tube?

- 9 What do you mean by symbiotic relationship? Give an example. 2
- 10 Explain an activity to show the action of saliva on food. 2
- 11 What are villi? What is their location and function? 2
- 12 How does digestion take place in grass eating animals? Explain. 3
- 13 What are the three types of soil? Explain their characteristics. 3

OR

- (a) How can soil erosion be prevented?
(b) What kind of soil is best for the following crops? Why?
(a) Paddy (b) cotton

- 14 What are the precautions that one must follow while handling laboratory thermometers? 3

OR

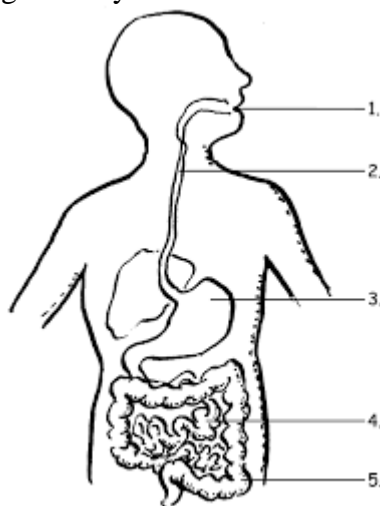
How does radiation differ from conduction and convection as different modes of transfer of heat?

- 15 Give reasons for the following: 3
(i) Kink is present in clinical thermometer.
(ii) Woollen clothes keep us warmer in winters than cotton clothes.
(iii) Ventilators in houses are provided at the top of walls.

- 16 (a) Differentiate between weather and climate. 3
 (b) What is meant by Migration?
- 17 Which are the different types of teeth in an adult human? State its functions. 3
- 18 (a) Explain saprotrophic nutrition with the help of an example. 3
 (b) Why do desert plants have scale or spine like leaves?
- 19 A car moves with a speed of 45 km/h for 20 minutes and then with a speed of 54 km/h for the next 20 minutes. What is the total distance covered by the car in m/s? 3
- 20 (a) What are indicators? 3
 (b) Identify the acid/base present in the following:
 (i) Spinach (ii) Curd (iii) Soap (iv) Window cleaners
- 21 Tina has been stung by a honey bee. Her friend Nita suggests that it should be treated with baking soda. 3
 (i) What is the chemical nature of honey bee sting?
 (ii) What is the value displayed by Nita?
 (iii) Give the chemical name of baking soda.
- 22 (a) Draw a distance – time graph for the following data. 5

Time (s)	2	4	6	8	10	12	14
Distance (m)	4	6	8	10	11	12	13

- (b) Is the motion uniform? Justify your answer.
 (c) The distance travelled by a car in 30 minutes is 18 Km. Find its speed in Km/h and convert the result to m/s.
- 23 (a) Explain the feeding and digestion in amoeba. 5
 (b) Label the parts of human digestive system.



- 24 (a) Explain how penguins are adapted to survive in Polar Regions. 5
(b) Explain four adaptive features of Polar bears.
- Or
- (a) Mention briefly how the following animals are adapted to survive in the tropical forest regions.
(i) Elephant (ii) Lion tailed macaque.
- 25 (a) Complete the following equation showing the reaction between sodium hydroxide and hydrochloric acid 5
$$\text{NaOH} + \text{HCl} \rightarrow \text{-----} + \text{-----}$$

(b) Write any two properties of acids and bases.
(c) The plants do not grow well when the soil is highly acidic. Suggest two substances that can be used to treat such soil so as to neutralize the acidity.
- 26 (a) What is meant by soil profile? Explain. 5
(b) How is soil formed? Suggest some measures to reduce soil pollution.
- 27 (a) By what mode of transfer of heat, land breeze and sea breeze occur? 5
(b) Explain the formation of land breeze and sea breeze with the help of diagrams.