SAMPLE PAPER (TERM-I)
SESSION 2019-20
CLASS VII
SCIENCE

Time: 3 Hrs **Maximum Marks: 80**

General Instructions:

(i) The question paper comprises of two sections, A and B. You are to attempt both the sections.
(ii) All questions are compulsory.
(iii) All questions of Section-A and B are to be attempted separately.
(iv) There is an internal choice in three questions of five marks each.
(v) Question numbers 1 and 2 in Section A are one mark question. They are to be answered in one word or in one sentence.
(vi) Question numbers 3 to 5 in Section A are two marks questions.
(vii) Question numbers 6 to 15 in Section A are three marks questions.
(viii) Question numbers 16 to 21 in Section A are five marks questions.
(ix) Question numbers 22 to 27 in Section B are activity based questions. Each question is a two marks question. These are to be answered in brief.

SECTION A

1. Sunil tries to measure his body temperature using a laboratory thermometer. Would he be successful to get the exact temperature? Give reason for your answer. **(1)**

2. Cotton is used to keep us cool, then why cotton is used during winters to fill the quilts? **(1)**

3. Sarita wishes to grow lentils in her field **(2)**
i) Which soil is most suitable for growing lentils?
ii) Write any two characteristics of this soil.

4. Give any two examples of each: **(1+1=2)**
i) A parasitic plant.
ii) An insectivorous plant.

5. Write the chemical name of Baking soda and Vinegar. Name the gas released when a pinch baking soda is added to vinegar. What type of change would it be? **(2)**

6. **i)** Define galvanisation. How is it helpful? **(2+1=3)**
ii) Why does stainless steel not rust?

7. a. What do you understand by a chemical change?

b. Give an example of a chemical change in the following situations:

i) A change in colour is observed.

ii) Sound is produced.

iii) Heat is produced.

iv) A gas is evolved.

(1+2=3)

8. i) Animals living in the tropical rainforests share some common adaptations. Write any four of these common adaptations. **(2+1=3)**

ii) Why do we find animals of a certain kinds living in a particular climatic condition?

9. What do you mean by symbiotic relationship? Explain it with reference to lichens. **(3)**

10. i) What kind of climate is present in polar regions? **(1+2=3)**

ii) Write any four adaptations of animals living in polar region.

11. i) Name four types of teeth present in your mouth. **(2+1=3)**

ii) Why humans are unable to digest cellulose?

12. Give reasons for the following: **(1x3=3)**

i) Less energy is produced in the process of anaerobic respiration.

ii) Fish open its mouth many times in water.

iii) The size of chest cavity increases when we breathe in.

13. i) Write any two precautions to be taken before reading a clinical thermometer. **(2+1=3)**

ii) Mention any two reasons for using mercury in thermometer.

14. i) Give any two differences between clayey soil and sandy soil. **(2+1=3)**

ii) What is the role of microorganisms in the soil?

15. i) List any two differences between breathing and respiration. **(2+1=3)**

ii) How does gaseous exchange take place in roots of the plants?

16. a. Water logged soil is not suitable for the plant growth. Why? **(1+4=5)**

b. i) Amar conducted an experiment in the field related to the rate of percolation. He observed that it took 10 min for 200 mL of water to percolate through the soil sample A and 40 min for water to percolate through the soil sample B. Calculate the rate of percolation in both the soil samples.

ii) What does percolation rate indicate about the nature of soil?

OR

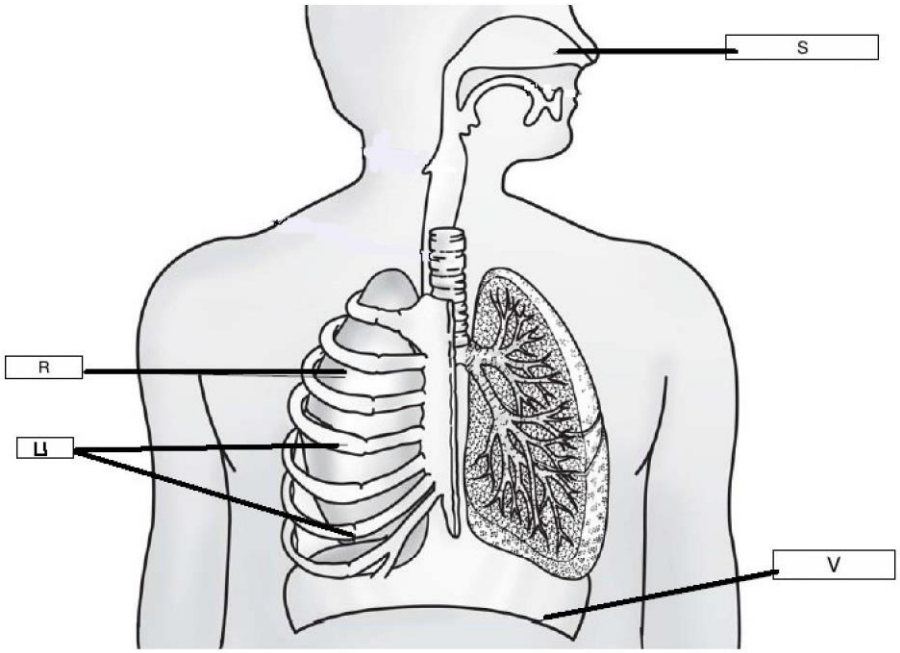
(2+3=5)

a. Draw a well labelled diagram of soil profile.

b. i) Calculate the percentage of water absorbed by the soil (weighing 50g), if the water absorbed by the soil is 40 ml. (consider 1mL of water weighs 1g).

ii) Write any two properties of the upper most layer of soil.

17. a. **i)** Identify and name the parts indicated as R, S, U and V in the given diagram. **(2+2+1=5)**



b. Write the function of R and V.

c. Why do we get muscle cramps after heavy exercise?

OR

a. Write the word equation for the process of breakdown of glucose in a cell:

i) In the absence of oxygen

ii)In the presence of oxygen **(3+2=5)**

b. How does exchange of gases take place in the following

(i) Amoeba

ii) Tuna fish

iii) Lizard

iv) Grasshopper

18. Complete the given table.

(0.5X10=5)

S.No	Organs of Alimentary canal and associated glands	Secretions	Functions
i)	Salivary gland	a.	f.
ii)	Stomach	b.	g.
		c.	h.
		d.	i.
iii)	Liver	e.	j.

OR

a. Explain the process of feeding and digestion in amoeba with the help of a diagram. **(3+2=5)**

b. What are villi? Write its function

19. a. i) How do green plants obtain raw materials from the surroundings for photosynthesis? **(3+2=5)**

ii) Write the word equation of photosynthesis.

b. Write any two points of differences between heterotrophic and autotrophic mode of nutrition.

20. (a) Explain briefly how the rearing of silk worms is done for obtaining silk. **(3+1+1=5)**

(b) Write any two characteristic of the silk fibre obtained from silkworm.

(c) Name any two varieties of silk.

21. a. Identify the mode of heat transfer in the following **(2+1+2=5)**

i) Measuring temperature using thermometer.

ii) Formation of sea breeze.

iii)Heating of an iron rod.

iv)Melting of ice.

b. Two similar metal balls A and B at temperature of 50˚C and 40˚C respectively are kept in contact. In which direction will the heat flow and why?

c. Draw a well labelled diagram to show the formation of sea breeze.

SECTION B

22. Two flasks were labelled as A and B. In flask A and B, 20 ml glucose solution was added and in flask A yeast was also added. Both the flasks were sealed with a cork. After 2 hours, bubbles were observed inside the flask. The gas released inside the flask was then allowed to pass through lime water. Lime water turned milky **(2)**

i) Which gas was released in the above experiment?

ii) What do you conclude from the above activity?

23. Two test tubes were taken and marked as A and B. In test tube A, small pieces of bread were added and in test tube B, the chewed pieces of bread were added. After 5 minutes, a solution was added into both the test tube to test the presence of starch. **(2)**

i) Name the solution added to test the presence of starch. What colour change will indicate the presence of starch?

ii) Which test tube will show the colour change and why?

24. Two cans (one painted black and other painted silver from outside) of same material and equal size were filled with same amount of hot water at the same temperature (50˚C), left inside a room. **(2)**

i) In which can the temperature will fall faster?

ii) What is the mode of heat transfer in this activity?

25. A teaspoon of copper sulphate was added in half a cup of water in a beaker. A blue coloured solution was obtained. A nail was dropped in the solution. After 30 minutes, colour change was observed. **(2)**

i) What is the reason for the colour change?

ii) What change would you observe in the nail dipped in the solution after sometime?

26. If you leave a piece of iron in the open for a few days, it acquires a film of brownish substance called rust. **(2)**

i) State two conditions required for its formation.

ii) What is the chemical name of this brown deposition on iron?

27. A potted plant was taken and leaves were destarch by keeping it in dark for 2 days. A leaf was covered with a thick paper from half a side. The set up was left in sunlight and after 5-6 hours, the leaf was tested for the presence of starch. **(2)**

i) Which part of the leaf will show positive starch test and why?

ii) What does the above activity conclude?