CBSE
Class VII Science
Term 1
Sample Paper - 1

Time: 3 hrs **Total Marks: 100**

General Instructions:

1. The question paper consists of 44 questions and is divided into four sections, A, B, C and D.
2. All questions are compulsory.
3. Section A comprises question numbers 1 to 20. These are multiple choice questions carrying one mark each. You are to select one most appropriate response out of the four provided options.
4. Section B comprises question numbers 21 to 30. These are SAQs carrying two marks each.
5. Section C comprises question numbers 31 to 40. These are SAQs carrying four marks each.
6. Section D comprises question numbers 41 to 44. These are SAQs carrying five marks each.

SECTION A

Q.1 Grass eaten by ruminants is stored in the (1)
   A. Rumen
   B. Liver
   C. Gall bladder
   D. Oesophagus

Q.2 Which type of relationship is seen in algae and fungi in lichens? (1)
   A. Predator–prey
   B. Parasitic
   C. Saprophytic
   D. Symbiotic

Q.3 Why does the temperature increase as the day advances? (1)
   A. Due to slanting sun rays
   B. Due to perpendicular sun rays
   C. Due to inclined sun rays
   D. Due to global warming

Q.4 Which instrument is used to measure air pressure? (1)
   A. Manometer
   B. Barometer
   C. Hydrometer
   D. Anemometer

Q.5 What is biological weathering? (1)
   A. Weathering caused by plant and animal activities
   B. Weathering caused only by plant activities
   C. Weathering caused by the action of air
   D. Weathering caused by the action of water

Q.6 We tend to feel hungrier after (1)
   A. Standing
   B. Exercise
   C. Resting
   D. Sleeping

Q.7 Angora wool is obtained from (1)
   A. Angora sheep
   B. Angora yak
   C. Angora goat
   D. Angora camel

**Q.8** Identify the correct stage of the silkworm life cycle as shown in the picture. (1)

   A. Female laying eggs
   B. Pupa stage
   C. Cocoon stage
   D. Adult stage

Q.9 Which microorganism is responsible for the fatal blood disease called sorter's disease? (1)
- A. Virus, Anthrax
- B. Algae, Anthrax
- C. Bacteria, Anthrax
- D. Animal, Anthrax

Q.10. Which of the following bases is used as a cleansing agent? (1)
- A. Magnesium hydroxide
- B. Calcium hydroxide
- C. Sodium hydroxide
- D. Ammonium hydroxide

Q.11 Which of the following substances helps in reducing the irritation caused by the sting of an ant? (1)
- A. Vinegar
- B. Lemon juice
- C. Calamine (zinc carbonate)
- D. Orange juice

Q.12 Which of these substances are found in our body? (1)
- A. Hydrochloric acid (HCl)
- B. Deoxyribonucleic acid (DNA)
- C. Fatty acids
- D. All of the above

Q.13 What will happen if a solution of baking soda is put on turmeric paper? (1)
- A. The colour of turmeric paper changes from yellow to blue.
- B. The colour of turmeric paper changes from yellow to green.
- C. The colour of turmeric paper changes from yellow to red.
- D. The colour of turmeric paper changes from yellow to magenta.

Q.14 Pick a good conductor of heat from the following: (1)
- A. Aluminium
- B. Plastic
- C. Wood
- D. Rubber

Q.15 The trapped air under the feathers of a bird: (1)
- A. Reduces heat transfer through conduction
- B. Increases heat transfer through conduction
- C. Stops heat transfer by conduction
- D. Does not affect heat transfer through conduction

Q.16 The vacuum present in a vacuum flask reduces heat transfer by _____.   (1)
   A. Convection
   B. Radiation
   C. Conduction and convection
   D. Conduction

Q.17 The air near the source of heat   (1)
   A. Rises away from the source
   B. Moves closer to the source
   C. Remains in the same place
   D. Moves randomly

Q.18 The base/fundamental unit of time is   (1)
   A. Minute
   B. Second
   C. Hour
   D. Year

Q.19 Average speed = _____   (1)
   A. Half distance travelled/time
   B. Half distance travelled × time
   C. Total distance travelled/total time
   D. Total distance travelled × total time

Q.20 A car moves with a speed of 40 km/h for 15 minutes, and then with a speed of 60 km/h for the next 15 minutes. The total distance covered by the car is   (1)
   A. 100 km
   B. 25 km
   C. 15 km
   D. 10 km

SECTION B

Q.21 How are nutrients replenished in the soil? (2)

Q.22 Why are nights foggy during winters? (2)

Q.23 How do earthworms increase soil fertility? (2)

Q.24 How is energy released during anaerobic respiration? (2)

Q.25 (2)
(i) What is the purpose of scouring the sheared skin obtained from sheep?
(ii) How is it done?

Q.26 Name the base present in milk of magnesia. What is it used for? (2)

Q.27 What is an antacid? How does an antacid work? (2)

Q.28 How does heat and temperature differ from each other? (2)

Q.29 Your car moves with a speed of 40 km/h for 10 minutes, and then with a speed of 60 km/h for the next 15 minutes. What is the total distance covered by the car? (2)

Q.30 A body moves along a path. Its distance–time graph is shown below. How much distance will it cover in 6 hours? (2)
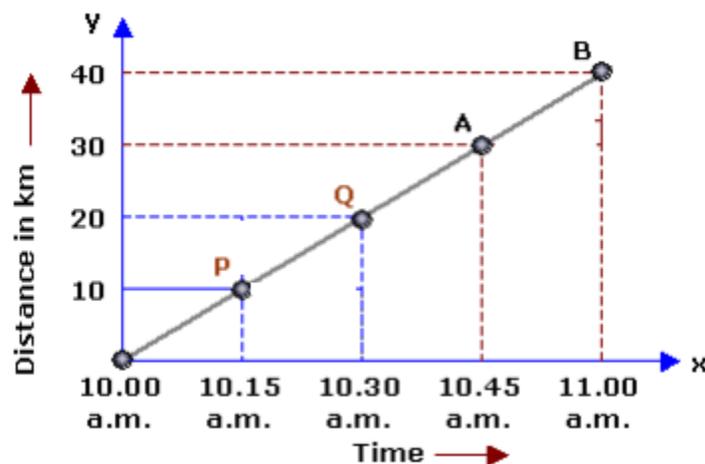
SECTION C

Q.31
   (i) Explain how an insect gets trapped in the pitcher plant?   (4)
   (ii) How do fungi germinate?

Q.32
   (i) How is the camel adapted to survive in deserts?   (4)
   (ii) How do rats and snakes survive in deserts?

Q.33
   (i) Which soil horizon/section has the highest mineral content and why?   (4)
   (ii) How is soil important for plant growth?

Q.34
   (i) Why do muscle cells respire anaerobically?   (4)
   (ii) Why do muscle cramps arise after heavy physical exercise?

Q.35 Give reasons for the following: (4)

   (i) Wool burns with a bad smell.
   (ii) Wool is used for making winter clothing.
   (iii) The quality of wool depends on the breed of sheep.
   (iv) Shearing does not cause any pain to the sheep.

Q.36   (4)
   (i) Define sericulture.
   (ii) What is a cocoon?
   (iii) Explain the process of obtaining silk thread from the cocoon.

Q.37 Differentiate between acids and bases (four points).   (4)

Q.38   (4)
   (i) An iron ball at 40°C is dropped in a mug containing water at 40°C. What will be the passage of flow of heat in the system? Explain.
   (ii) How does heat flow in a body having one end cool and the other at high temperature?

Q.39   (4)
   (i) What is a laboratory thermometer?
   (ii) Which thermometer is used to measure high temperatures?
   (iii) Stainless steel pans are usually provided with copper bottoms. Why?

Q.40 (4)

    (i) Give two examples of periodicity observed in nature?

    (ii) A bike moves with a speed of 60 km/h and covers 25 km, and then with a speed of 50 km/h covers 20 km to reach the destination. What is the total time taken by the bike to reach the destination?

SECTION D

Q.41 (5)

    (i) What are the final products of photosynthesis? What happens to them?

    (ii) Mention some of the special features of desert plants.

Q.42 (5)

    (i) What is the role played by the stomata in plants?

    (ii) How do snakes respire?

Q.43 (5)

    (i) What is neutralisation? How is a neutralisation reaction represented?

    (ii) Describe the neutralisation reaction between sodium hydroxide and hydrochloric acid with the help of an activity.

Q.44 (5)

    (i) What is a simple pendulum? Define the time period of a simple pendulum.

    (ii) State whether the following statement is true or false: The time period of a given pendulum is not constant.

    (iii) In an experiment to measure the time period of a simple pendulum, the time for 20 complete oscillations was found to be 36 s. What is the time period of this pendulum?