

**Goa Board  
Class VII Science  
Term 1  
Sample Paper - 4**

**Time: 3 hrs**

**Total Marks: 100**

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**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.
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**SECTION A**

- Q.1** The first compartment of a cow's stomach is the (1)  
A. Rumen  
B. Omasum  
C. Abomasum  
D. Gizzard
- Q.2** Which one of the following is released during the process of photosynthesis? (1)  
A. Nitrogen  
B. Carbon dioxide  
C. Energy  
D. Oxygen
- Q.3** Aestivation is (1)  
A. Winter sleep  
B. Summer sleep  
C. Autumn sleep  
D. Another term for migration

- Q.4** The pellets of frozen rain or ice falling in showers from clouds are called (1)
- A. Rain
  - B. Hail
  - C. Fog
  - D. Mist
- Q.5** Which type of soil is found in the Shivalik range? (1)
- A. Red soil
  - B. Alluvial soil
  - C. Black soil
  - D. Mountain soil
- Q.6** Inhalation is a process of (1)
- A. Taking in carbon dioxide
  - B. Taking in oxygen
  - C. Releasing oxygen
  - D. Releasing carbon dioxide
- Q.7** Which is not TRUE about silk fibre? (1)
- A. Silk fibre is soft.
  - B. Silk fibre is lustrous.
  - C. Silk fibre can be dyed in different colours.
  - D. Silk fibre is inelastic.
- Q.8** Which of the following is not a type of silk? (1)
- A. Muga silk
  - B. Tassar silk
  - C. Kosa silk
  - D. Terry silk
- Q.9** The pashmina shawl is a famous product from (1)
- A. Delhi
  - B. Jammu and Kashmir
  - C. Himachal Pradesh
  - D. Assam
- Q.10** Which of the following acids is present in tamarind? (1)
- A. Tartaric acid
  - B. Formic acid
  - C. Lactic acid
  - D. Acetic acid

- Q.11** Which of the following bases cannot be used as an antacid? (1)
- A. Sodium carbonate
  - B. Magnesium hydroxide
  - C. Sodium hydrogen carbonate
  - D. None of the above
- Q.12** Which of these gases are responsible for acid rain? (1)
- A. Carbon dioxide
  - B. Sulphur dioxide
  - C. Nitrogen dioxide
  - D. All of the above
- Q.13** Which of the following will show no effect on turmeric paper? (1)
- A. Lemon juice
  - B. Sodium hydroxide
  - C. Potassium hydroxide
  - D. Lime water
- Q.14** Which of the following statements is true for radiation? (1)
- A. Radiation cannot travel through a vacuum.
  - B. Radiation travels at the speed of light.
  - C. Radiation can help ventilation in mines.
  - D. Radiation can cause sea breeze.
- Q.15** A radiating source is usually (1)
- A. Hot
  - B. Cold
  - C. Below room temperature
  - D. The Sun
- Q.16** Which of the following methods of heat transfer require a medium? (1)
- (I) Conduction (II) Convection (III) Radiation
- A. (I) and (II)
  - B. (II) and (III)
  - C. (I) and (III)
  - D. (I), (II) and (III)
- Q.17** The to-and-fro motion of a simple pendulum is an example of (1)
- A. Linear motion
  - B. Circular motion
  - C. Oscillatory motion
  - D. All of the above

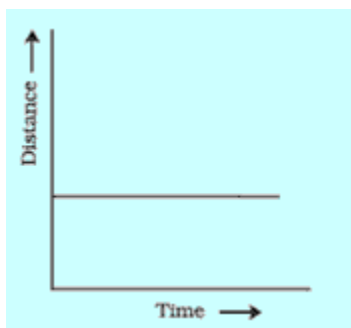
**Q.18** The ages of stars and planets are often expressed in (1)

- A. Millions of years
- B. Billions of years
- C. Hundreds of years
- D. Thousands of years

**Q.19** The meter which measures the distance moved by a vehicle is known as (1)

- A. Odometer
- B. Speedometer
- C. Thermometer
- D. None of the above

**Q.20** In the graph given below, (1)



- A. Initial speed = Final speed
- B. Initial speed > Final speed
- C. Initial speed < Final speed
- D. (Initial speed – Final speed) is non-zero

**SECTION B**

- Q.21** How does the food pipe help in the process of digestion? (2)
- Q.22** How are cyclones formed? (2)
- Q.23** Why is loamy soil the most fertile soil? (2)
- Q.24** Why do we feel hungry after a physical activity? (2)
- Q.25** Why is it advised to place twigs in trays while rearing silk moth? (2)
- Q.26** Which regions are the leading producers of yak wool and angora wool? (2)
- Q.27** Industrial waste should be neutralised before disposing it into water bodies. (2)  
What is the nature of these wastes? How are these treated?
- Q.28** Classify the following as bad or good conductors of heat: (2)  
Iron, air, aluminium, water
- Q.29** Why does coffee or tea stay hot longer in a shiny pot than a black pot? (2)
- Q.30** Calculate the time period of a pendulum which oscillates 100 times in an hour. (2)

**SECTION C**

- Q.31** Why do grass-eating animals keep chewing continuously even when they are not eating? What is this process called? (4)
- Q.32** (i) Why are monsoon winds known as seasonal winds? (4)  
(ii) Why does sea breeze blow during the day?
- Q.33** (i) Why does the percolation rate affect the fertility of soil? (4)  
(ii) How does humus prevent soil erosion?
- Q.34** (i) Explain the mechanism of breathing. (4)  
(ii) What is cellular respiration?

**Q.35** Describe briefly how silk is produced. (4)

**Q.36** Consider the following salts: (4)

Sodium sulphate, Sodium carbonate, Ammonium sulphate

The aqueous solution of which of these salts will

- (i) Turn blue litmus to red?
- (ii) Turn phenolphthalein to pink?
- (iii) Turn China rose indicator to green?
- (iv) Have no effect on any indicator?

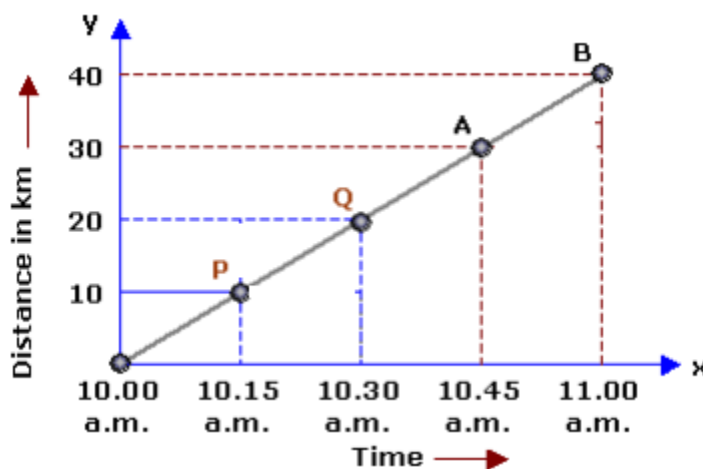
Give reasons for your answers.

**Q.37** Neutralisation reactions play an important role in soil treatment. Elaborate. (4)

**Q.38** Why should air coolers be kept higher up in the room and not down like heaters? (4)

**Q.39** (i) Name two types of graphs other than line graphs. (4)

(ii) A body moves along a path. Its distance–time graph is shown below. How much time will it take to cover a 100-km distance?



**Q.40** (i) Which of the two is a bigger unit of time: Microsecond or nanosecond? (4)

(ii) Give three daily life examples of non-uniform motion.

**SECTION D**

**Q.41** Describe different types of teeth and state their functions. (5)

**Q.42**

(i) What is breathing? (5)

(ii) Differentiate between aerobic and anaerobic respiration.

**Q.43** The moth A lays hundreds of eggs. The eggs hatch to produce worms B which are fed cut leaves of tree C. After about 25–30 days, the worms stop eating and spin cocoons of fibres D. The fibres D are separated from cocoons by the process E. The spinning of these fibres produces a yarn which is woven on looms into fine cloth used for making saris etc. F is the most common variety of D fibres. (5)

(i) What is moth A?

(ii) Name worm B and tree C.

(iii) What are fibres D?

(iv) Name the process E.

(v) Which variety is F?

**Q.44** What is a clinical thermometer? What is the range of a clinical thermometer? (5)  
Explain why a clinical thermometer cannot be used to measure high temperatures.