

**Goa Board  
Class VIII 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** Atmospheric nitrogen does not get fixed through (1)  
A. Rhizobium bacteria  
B. Action of lightning  
C. Clostridium bacteria  
D. Action of plants
- Q. 2** Which oil is obtained from fish? (1)  
A. Hair oil  
B. Fuel oil  
C. Cod liver oil  
D. Olive oil
- Q. 3** Chemical fertilisers may get washed into water bodies through a process called (1)  
A. Manuring  
B. Leaching  
C. Sowing  
D. Drilling
- Q. 4** Which is not a symptom of food poisoning? (1)  
A. Vomiting  
B. Stomach ache  
C. Loose motions  
D. Swelling of the face

- Q. 5** What is false about deforestation? (1)
- It reduces biodiversity of that area.
  - It ensures better survival of animals of the area.
  - It uproots several organisms from their habitat.
  - It is carried out by humans to use the land for other purposes.
- Q. 6** The indiscriminate killing of which of the following animals can lead to loss in the production of food grains? (1)
- Birds
  - Snakes
  - Grasshoppers
  - Rats
- Q. 7** What type of plastic is used for making grocery bags and for packaging of foods and bread? (1)
- Thermosetting
  - Thermoplastic
  - All plastic
  - All polymers
- Q. 8** Which of the following can be decomposed easily? (1)
- Cellulose
  - Rayon
  - Nylon
  - Acrylic
- Q. 9** Which products are formed when iron (Fe) reacts with dilute hydrochloric acid (HCl)?(1)
- $\text{FeH}_2 + \text{Cl}_2$
  - $\text{FeCl} + \text{H}_2$
  - $\text{FeCl}_2 + \text{H}_2$
  - Iron does not react with dilute hydrochloric acid.
- Q. 10** Considering the following reactions, which is the most reactive metal of the given metals? (1)
- $$\text{Mg} + \text{ZnSO}_4 \rightarrow \text{MgSO}_4 + \text{Zn}$$
- $$2\text{Na} + \text{MgSO}_4 \rightarrow \text{Na}_2\text{SO}_4 + \text{Mg}$$
- $$2\text{Na} + \text{ZnSO}_4 \rightarrow \text{Na}_2\text{SO}_4 + \text{Zn}$$
- Na
  - Mg
  - Zn
  - S
- Q. 11** When silver metal is added to a solution of iron nitrate (1)
- Silver displaces iron
  - Iron displaces silver
  - No reaction takes place
  - The solution catches fire

- Q. 12** Which type of coal has 92–98% carbon content? (1)  
A. Bituminous  
B. Anthracite  
C. Lignite  
D. Peat
- Q. 13** Paraffin wax finds its use in the manufacture of (1)  
A. Candles  
B. Dry cleaning products  
C. Plastics  
D. Paints
- Q. 14** Which of the following changes appreciably when a batsman hits a moving cricket ball? (1)  
1. Shape  
2. Size  
3. Direction  
4. Speed  
A. 1 and 4  
B. 1 and 2  
C. 3 and 4  
D. 2 and 4
- Q. 15** If the area on which a force acts is small, it can produce large (1)  
A. Pressure  
B. Temperature  
C. Push and pull  
D. Expansion
- Q. 16** Which type of force is used to keep the refrigerator door closed tightly? (1)  
A. Magnetic force  
B. Gravitational force  
C. Artificial force  
D. Nuclear force
- Q. 17** Which of the following is a suitable method to decrease friction? (1)  
A. Ball and roller bearing  
B. Lubrication  
C. Polishing  
D. All of the above
- Q. 18** Which of the following should be used to reduce friction on a carrom board? (1)  
A. A lubricating oil  
B. A dry lubricant  
C. A layer of grease  
D. A ball bearing

- Q. 19** The voices of men and children are different due to (1)  
A. Their age  
B. Their gender  
C. Their physical features  
D. The length of their vocal chords
- Q. 20** When a sound is generated by a vibrating object, the sound wave spreads in (1)  
A. The direction towards a lighter medium.  
B. The direction of light energy in the surrounding air.  
C. The direction towards a denser medium.  
D. In all the directions around the source of generation.

**SECTION B**

- Q. 21** Write any two points to describe the importance of forests. (2)
- Q. 22** Discuss two advantages of the drip irrigation system. (2)
- Q. 23** How are grains stored in gunny bags or bins? (2)
- Q. 24** Malaria is caused by protozoa. Then why destroying mosquitoes prevents the spread of malaria? (2)
- Q. 25** We should not wear fabrics made of synthetic fibres in hot summer weather. Why? (2)
- Q. 26** (2)  
(i) What happens when a piece of copper metal is placed in an iron sulphate solution?  
(ii) Express the following fact in the form of a chemical equation:  
When a strip of copper metal is placed in a solution of silver nitrate, metallic silver is precipitated and a solution containing copper nitrate is formed.
- Q. 27** List two advantages of using CNG as fuel. (2)
- Q. 28** Which force is involved in the bending of our body? Mention any two day-to-day activities which can be performed by exerting such a force. (2)
- Q. 29** Comment on the special body shapes of most of the fish. (2)
- Q. 30** How do we recognise the different sounds of the same loudness? Give example from everyday life. (2)

**SECTION C**

**Q. 31** (4)

(i) Name the following:

- (a) The gradual conversion of the fertile land into deserts due to deforestation.
- (b) The overall increase in the temperature of the Earth due to greater concentration of carbon dioxide in the atmosphere.
- (c) Clearing of forests and using that land for other purposes.

(ii) How does carbon dioxide cause global warming?

**Q. 32** (4)

(i) How do weeds affect the crops grown in fields?

(ii) What is a combine? What is its use?

**Q. 33** Name the following: (4)

(i) A preparation of dead or weakened microbes which is introduced into healthy persons to protect them from a particular disease in the future.

(ii) The medicines obtained from microorganisms which are used to kill or stop the growth of disease-causing microorganisms.

(iii) The process of conversion of sugar into alcohol by yeasts.

(iv) The product obtained by decomposition of plant and animal wastes by microorganisms.

**Q. 34** (4)

(i) What are the two ways in which atmospheric nitrogen gets fixed into usable forms?

(ii) How do herbivores obtain nitrogen for their body?

**Q. 35** (4)

(i) Explain the difference between thermoplastics and thermosetting plastics (two differences each).

(ii) Choose the thermoplastics and thermosetting plastics from the following:

Melamine, Polythene, Bakelite, Polyvinyl chloride (PVC)

(iii) Explain why plastic containers are preferred for storing food.

**Q. 36** Differentiate between metals and non-metals on the basis of their chemical properties. (4)

**Q. 37** (4)

(i) What are petrochemicals? Name any two petrochemicals.

(ii) Why are petrochemicals so important?

**Q. 38**

- (i) Mention any three points to give the importance of gravitational force.
- (ii) Is muscular force a type of contact force? (4)

**Q. 39**

- (i) Why do tyres of vehicles have treads in them? (4)
- (ii) Will it be possible to cut wood without the force of friction? Briefly explain.

**Q. 40**

- (i) Why does sound travel faster in solids? (4)
- (ii) Can you tell why astronauts carry radios to space to communicate with each other?

**SECTION D****Q. 41**

- (i) Briefly describe the drip irrigation system. (5)
- (ii) What are the advantages of the drip irrigation system?

**Q. 42** Briefly explain the main steps in the nitrogen cycle. (5)

**Q. 43** You have been provided with four test tubes having a small piece of magnesium ribbon in the first test tube, a piece of aluminium foil in the second test tube, some iron filings in the third test tube and a piece of uncovered copper wire in the fourth test tube. (5)

What happens when these metals react with hydrochloric acid? What inference can you draw from these reactions?

**Q. 44** Describe an activity to demonstrate that sound cannot travel through vacuum. (5)