

- Q.5 How is frictional force related to roughness of surfaces in contact? (1)
- Q.6 Define focus of an earthquake. (1)
- Q.7 What are seismic waves? (1)
- Q.8 Name the following: (1)
(a) metal having low melting point (b) an antiseptic non-metallic in nature
- Q.9 How is LPG obtained? (1)
- Q.10 State 2 uses of coal tar. (1)
- Q.11 Aircrafts have pressurised cabins. Why? (2)
- Q.12 Explain the cause of friction. (2)
- Q.13 The process of electroplating has many practical applications in daily life. (2)
Explain any two of them.
- Q.14 How will you prove that metal oxides are basic in nature? (2)
- Q.15 Anil always switches off the fans and light of his room while going out. (2)
What value do you derive from his act? Suggest 2 measures to support your value.
- Q.16 Identify the reasons for the following problems seen today (2)
(a) leaf drop in plants (b) depletion of ozone
(c) melting of glaciers (d) acid rain
- Q.17 Mention any three properties of liquid pressure. (3)
- Q.18 (a) Mention 3 ways of reducing friction. (3)
- Q.19 What do you mean by the statement-“ Static friction is self adjusting force.”? (3)
- Q.20 What are the prominent effects of chemical reactions taking place at (3)
electrodes and within the solution?
- Q.21 State 3 safety precautions that people living in seismic zones should take so (3)
as to reduce the destruction cause by an earthquake.

Q.22 (a) Differentiate between malleability and ductility. (3)
(b) Name 2 metalloids.

Q.23 List down 2 causes which have led to the increase in concentration of greenhouse gases in the atmosphere. (3)

Q.24 (a) Account for the following (5)
i) Mountain climbers carry oxygen cylinders with them.
ii) Fountain pens leak in aircrafts.
iii) We sprinkle talcum powder on carrom boards.

(b) How is thrust related to pressure? Write the formula.
OR

(a) Account for the following
i) High rise buildings and dams have a wide base.
ii) Nails and pins have pointed ends.
iii) Snow shoes are more effective for walking on snow than ordinary shoes.

(b) How does a streamlined body help in moving through a fluid?

Q.25 (a) You are given a bar magnet, hollow cylindrical pipe of iron and copper wire. How can you explain Faraday's discovery using these materials? (5)

(b) List down the main conclusions drawn from this experiment.

OR

(a) Explain the process of electroplating with an activity.
(b) Write 2 conditions that can help in getting a smooth and firm deposit of metal during the above mentioned process.

Q.26 (a) Arrange the following metals in descending order of reactivity- Al, Ca, Fe, Na, Cu, K (5)

(b) What are noble metals? Why are they considered to be so?

(c) Phosphorus is stored in kerosene. Why?

OR

(a) Write the chemical equations to show the following reactions
i) Iron nails put in HCl.

ii) Magnesium is added to water and heated.

(b) How will you test for the gas evolved in both the cases?

- Q.27 (a) Draw a neat labelled diagram to show the occurrence of petroleum. (5)
(b) The need of the hour is to look at alternate and cleaner sources of energy. Explain.

OR

- (a) What is natural gas? Name 2 places in India where it is found.
(b) Why is there an urgent need to switch onto renewable sources of energy?

SECTION - B

- Q.28 Chlorella is a (1)
(a) fungi (b) bacteria (c) protozoa (d) algae
- Q.29 Identify the smallest cell (1)
(a) amoeba (b) ostrich egg (c) PPLO (d) nerve cell
- Q.30 Name 2 biosphere reserves in India which are a part of the world network of biosphere reserves. (1)
- Q.31 Why do we have different types of cells in our body? (1)
- Q.32 What is the significance of Red Data Book? (1)
- Q.33 Given below are some of the impacts of deforestation. Explain what led to these: (2)
(a) desertification (b) disrupted river flow
- Q.34 The contribution of microorganisms in the field of food industry, medicine, etc. is indeed appreciable. How is their role significant in agriculture? (2)
- Q.35 Some people do not wear clothes made of animal fur. Why do you think they do so? (2)
- Q.36 Explain the process of vacuum packing and pasteurisation in preserving food. (3)
- Q.37 (a) Draw a neat labelled diagram of a plant cell and label its parts which are not present in animal cells. (3)
(b) What are cilia?

Q.38

(a) Complete the following table

(5)

| Name of disease | microorganism | Organism affected |
|-----------------|---------------|-------------------|
| ringworm | 1 | 2 |
| 3 | virus | cattle |
| 4 | fungi | poultry |
| 5 | fungi | Wheat |
| malaria | 6 | man |

(b) What is the significance of penicillium notatum?

(c) Define bioaugmentation.

OR

(a) Define vaccines. State the advantage of administering them.

(b) Name 2 diseases which can be prevented by vaccination

(c) Nowadays, the cases of dengue are on the rise. How is it caused?

What precautions would you take to prevent the spread of this disease?

Q.39

(a) Explain 2 main causes of extinction of endemic species.

(5)

(b) What needs should be kept in mind while selecting plants for reforestation?

(c) Name 2 tiger reserves.

OR

(a) How are birds able to migrate long distances?

(b) Introduced species can lead to extinction of endemic species. How?

(c) What is Gahirmatha Sanctuary in Orissa famous for?