

**Instructions :**

- (1) Do not copy questions.
- (2) Write neatly.
- (3) Leave one line after each answer.

**Physics (20 marks)**

1. Define Parsec. (1)
2. Why aeroplanes have a streamlined body? (1)
3. Why Venus is the hottest planet? (1)
4. What is electrostatic force? Give one example also. (2)
5. What are comets? How do they get a tail ? (2)
6. Describe one cause of friction. (2)

**OR**

How lubrication reduces friction?

7. Give reason why (2)
  - (a) Wheels of truck which carry heavy load are made broad.
  - (b) When we roll a ball, it comes to rest after travelling certain distance.
8. Why is Earth called a Unique planet? Write features of Earth which makes it unique. (3)

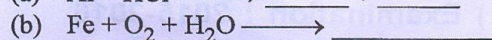
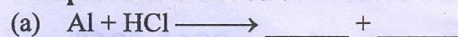
**OR**

Write two special features of

- (a) Uranus
- (b) Venus
9. What is atmospheric pressure? Describe an activity which describes effect of atmospheric pressure. (3)
10. (a) Friction is said to be a necessary evil. Give one example each. (3)
- (b) Give one method each to increase and decrease friction.

**Chemistry (20 marks)**

1. Give reasons for the following statements : (1×5=5)
  - (a) Sodium is kept under kerosene.
  - (b) Fire produced by electric circuits cannot be controlled by water.
  - (c) Goldsmith uses zone-A of the flame to melt gold.
  - (d) Food containing acidic content is not kept in metallic utensils.
  - (e) Base of cooking utensils is covered with copper.
2. Define : (1×3)
  - (a) Refining
  - (b) Phosphorescence
  - (c) Ignition temperature
3. Give two differences :- (2×2)
  - (a) Renewable and Non-renewable resources.
  - (b) Rapid combustion and spontaneous combustion.

**4. Complete and balance :****(1×2)****5. Answer the following**

- (a) Why should we refine crude oil. (1)  
(b) Natural resources should be used judiciously. Justify. (1)  
(c) What is the principle of fractional distillation. (1)  
(d) Write the full form of PCRA. What is its aim. (1)  
(e) How does soda acid fire extinguisher extinguish fire. Explain with the help of a chemical equation. (No diagram required) (2)

**Biology (20 marks)****A. Name the following :****(4×½=2)**

- (1) Bacteria present in curd \_\_\_\_\_  
(2) Plant body of algae is called \_\_\_\_\_  
(3) The process of sowing seeds manually \_\_\_\_\_  
(4) The power house of the cell \_\_\_\_\_

**B. Differentiate between : (Write one main point of difference)****(4×1=4)**

- (1) Prokaryotes and Eukaryotes  
(2) Cell wall and Cell membrane  
(3) Vaccines and antibiotics  
(4) Horticulture and olericulture

**C. Give reason to justify following statements :****(4×1=4)**

- (1) Leguminous crops are good for soil.  
(2) Nerve cell is long and branched.  
(3) Viruses are called connecting link between living and non living.  
(4) Cell is called the basic unit of life.

**D. Answer the following questions :****(5×2=10)**

- (1) Define food preservation? How UHT and pasteurization help in preservation of food?  
(2) Write an activity to show the affect of manures and fertilizers on the growth of plants.  
(3) Draw a well labelled diagram to show the structure of a plant cell.  
(4) Mention any 2 conditions that favour the growth of pathogens. Write any 2 precautions to prevent their growth.  
(5) Make a flow chart to show nitrogen cycle.

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