



Name of the Student : ..... Roll No. : .....

Physical Science (10 Marks)

SECTION - I

2 x 1 = 2

- Note : 1) Answer all the questions.  
2) Each question carries 1 mark.

1. On what factors does the refractive index of medium depends ?
2. P: Light ray passing along the principal axis is un deviated.  
Q: Light ray passing through the focus is un deviated.

Choose the correct option and write it in your answer sheet.

- A) P,Q both are correct                      B) P is correct, Q is incorrect  
C) P is incorrect, Q is correct            D) P,Q both are incorrect

SECTION - II

2 x 2 = 4

- Note: 1) Answer all the questions.  
2) Each question carries 2 marks.

3. a) What is the reason behind the shining of diamonds and how do you appreciate it ?  
b) Draw a ray diagram for the image formed when an object is kept at  $F_2$  before a convex lens.

SECTION - III

1 x 4 = 4

- Note : 1) Answer any ONE question.  
2) Question carries 4 marks.

4. a) Suggest an experiment to prove that the rate of evaporation of a liquid depends on its surface area and vapour already present in surrounding air.

(OR)

- b) Observe the table and answer the following questions

Solution	A	B	C	D	E	F	G	H
p <sup>H</sup> value	4	1	12	7	8	9	2	13

- i) Which solution is Neutral ?
- ii) Which solutions are strong Alkali ?
- iii) Which solutions are strong Acids ?
- iv) Which solutions are week Alkali ?



[ Turn Over

**Biological Science (10 Marks)****SECTION - I****2 x 1 = 2****Note :**

- 1) Answer all the questions.
  - 2) Each question carries 1 mark.
1. I am an enzyme. I secreted by pancreas. I act on proteins and convert them into peptones. Who am I ?
  2. Name the instrument given in the picture ?

**SECTION - II****2 x 2 = 4****Note:**

- 1) Answer all the questions.
  - 2) Each question carries 2 marks.
3. a) What happens if diaphragm is not there in the body ?
  - b) What food habits will you suggest to your friends to keep their digestive system healthy ?

**SECTION - III****1 x 4 = 4****Note :**

- 1) Answer any ONE question.
  - 2) Question carries 4 marks.
4. a) How can you prove that carbon dioxide is essential for the process of photosynthesis?
- (Or)**
- b) Write the differences between the blood vessels that carry blood to the heart and that carry blood away from the heart.