



GRADE: X Date:29/7/2024	Monthly Test 2 (2024-25) SCIENCE	Marks: 20 Time: 50 mins
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General Instructions:

1. There are 9 questions in the question paper.
2. All questions are compulsory.
3. Draw diagrams, wherever necessary.

Q.No	Questions	Mark
	SECTION A	
1	One dioptre is the power of a lens whose focal length is a) 2 m b) 1 m c) 0.5 m d) 3 m	1
2	The breakdown of pyruvate to give carbon dioxide, water and energy takes place in a) cytoplasm b) mitochondria c) chloroplast d) nucleus	1
3	The process through which the roots of plants absorb water from the soil is - a)Transpiration b)Osmosis c)Diffusion d)None of the above	1
	SECTION B	
4	Write the laws of refraction of light.	2
5	a)How is baking soda prepared? (Write the balanced equation)	2

	b) Explain the colour change when phenolphthalein and methyl orange are added to sodium hydroxide solution.	
6	a) What are the precautions that should be taken while diluting concentrated sulphuric acid and why? b) Write the formula of a compound having water of crystallisation.	2
	SECTION C	
7	a) An object is placed at 50 cm in front of a convex lens of focal length 30 cm. At what distance from the lens should a screen be placed in order to obtain a sharp image of the object? b) Draw a ray diagram to show the image formation by a convex lens when the object is placed between F_1 and $2F_1$.	3
8	A compound of calcium is used for whitewashing. When it combines with CO_2 it becomes white. But when if more amount of CO_2 is passed through it it becomes colourless. Explain the chemistry behind it using equations.	3
	SECTION D	
9	a) Compare the functioning of alveoli in the lungs and nephrons in the kidneys with respect to their structure and functioning. b) How are the lungs designed in human beings to maximize the area for exchange of gases?	5

CLASS X SCIENCE

MONTHLY TEST 2

	CHAPTER	1 MARK No. of Ques.	2 MARKS No. of Ques.	3 MARKS No. of Ques.	5 MARKS No. of Ques.	TOTAL MARKS
1	REFRACTION	1 X 1=1	1 X 2 = 2	1 X 3 =3		6
2	ACIDS, BASES AND SALTS		2 x 2 = 4	1 x 3 = 3		7
	LIFE PROCESSES	2X1=2			1X5=5	7
	TOTAL QUESTIONS	4Q X 1 M = 4 M	1 Q X 2M = 2M	3 Q X 3 M = 9M	1Q X 5M = 5 M	9Q/ 20 M