Class: X

SAINIK SCHOOL, AMARAVATHINAGAR

HOLIDAY HOMEWORK – 2019 – 2020

Class: **X** Subject: **PHYSICS**

S. NO	TOPIC	ACTIVITY / PROJECT	TIME PERIOD	SKILL ENHANCED / LEARNING OUT COMES	ANNEXURE NO
1	Light	Project	2 hrs	Application	A
2	Electromagnetism	Theory Project	3 hrs	Understanding	B
3	Reflection and Refraction	Question & Answer	10 hrs	Knowledge, Understanding & Application	C
4	Reflection and Refraction	Question & Answer	5 hrs	Knowledge, Understanding	D
5	Human eye	Question & Answer	5 hrs	Knowledge, Understanding	E

Annexure:

A. Light : Practical work – using available equipments - any one

B. Electromagnetism : 2 nos - Theory work – to be in A4 sheet with folder

C. Reflection and Refraction : Numerical Questions – in 4 Papers

D Reflection and Refraction : One Word / mark Questions (08 nos) – in 4 Papers

E Human Eye : One Word / mark Questions (20 nos) – in 4 Papers

TEACHER'S NAME: P Chandiran **SIGNATURE**

Recommended By **Approved By**

Vice Principal **Principal**

SAINIK SCHOOL AMARAVATHINAGAR

HOLIDAY HOME WORK 2019-20

FOR CLASS X (SCIENCE - PHYSICS)

Activity - Light

Annexure: A

1. Determination of the focal length of : i) Concave mirror ii) Convex lens by obtaining the image of a distant object. – Use Silver Spoon for Concave mirror & reading lens (or) Water lens for Convex lens.

(OR)

2 Finding the image distance for varying object distances in case of a convex lens and drawing corresponding ray diagrams to show the nature of image formed.

Project – Electromagnetism

Annexure: B

1. Discuss an Electromagnet - its uses – properties of magnet – disadvantage of electromagnetism

2. Draw and label the parts of Eye.

LIGHT REFLECION AND REFRACTION

Annexure: D

ONE MARK QUESTION

1. Refractive index of water is 4/3 and that of the glass is 3/2 with regard to air. What is the refractive index of glass with respect to the water? What is the power of concave lens of focal length 200cm?
2. The radius of curvature of spherical mirror is 20cm.What is its focal length?
3. What is the angle of reflection when a ray of light falls normally on a plane mirror?
4. What is the magnification produced by the plane mirror?
5. What is the nature of image formed by concave mirror if magnification produce by mirror is +3.
6. If the speed of light in a medium id 2 x 108 m/s, then what is refractive index
7. The refractive index of diamond is 2.42. What is the meaning of this statement in relation to the speed of light?
8. What do you mean by Power of the lens?

HUMAN EYE AND COLOURFULL WORLD

Annexure : E

ONE MARKS QUESTION

1. What is the far point and near point of the human eye with normal vision?
2. List the three phenomenon of light which is responsible for formation of rainbow in sky?
3. Name the place where image is formed in the eye?
4. Name the muscular diaphragm that controls the size of the pupil.
5. What is the cause of dispersion of light?
6. Give the cause of cataract of eye.
7. Which colour has got more wavelengths?
8. What makes bees respond to ultraviolet light?
9. What is the focal length of a plane mirror?
10. Which of the two has a great power, a lens of shot focal lenth or a lens of large length?
11. What does m= +1 stand for?
12. What is the power of a lens if its focal length is 50cm?
13. What is the nature of image at retina?
14. Name the point inside the lens through which a ray of light goes deviated?
15. What is the S.I. unit of power of a lens?
16. Name the photographic film equivalent to our eye .
17. Why does a glass slab not disperse white light?
18. Why do we not perceive the depth of a lake?
19. Name two causes of Myopia, Hypermetropia and Presbiopia.
20. Name the liquids that keep our eye soft.