



**THE LAWRENCE SCHOOL
SANAWAR
Sample Paper for Class XI**

**SCIENCE
(Set-1)**

Time: 01½ hr.

Max. Marks: 50

Name (In Capital Letters) _____

Registration Number _____

MARKS OBTAINED

Note: Teacher on duty is requested to ensure that the child has written correct and complete Registration Number

GENERAL INSTRUCTIONS

- 1. Question paper is divided into three sections. Section A, B and C.*
- 2. Questions are to be answered on the question paper itself (on the space provided against each questions)*

Name of the Teacher

Signature

SECTION A (PHYSICS) [Marks 20]

1. Name a mirror that can give an erect and enlarged image of an object? [1]

2. Give two differences between a real image and a virtual image [2]

3. Define power of a lens and define one dioptre. [2]

4. With respect to air the refractive index of kerosene is 1.44 and that for diamond is 2.42. Calculate the refractive index of diamond with respect to kerosene. In which of the two media the speed of light will be more and why? [3]

5. What is scattering of light? Why the colour of a clear sky blue? [3]

6. A concave lens of focal length 15cm forms an image 10cm from the lens. How far is the object placed from the lens? Draw the ray diagram. [3]

7. What is presbyopia? Write the main cause of this defect. [3]

8. A person needs a lens of power 5.5 dioptre for correcting his distant vision. For correcting his near vision, he needs a lens of power +1.5 dioptre. What is the focal length of the lens required for correcting distant vision and near vision? [3]

SAMPLE PAPER

SECTION B (CHEMISTRY) [Marks 20]

1. State two properties of carbon which lead to the huge number of carbon compounds.[1]

2. What would be the electron dot structure of cyclopentane? [2]

3. A mixture of oxygen and ethyne is burnt for welding. .Can you tell why, mixture of ethyne and air is not used? [3]

4. Write the molecular formula of the acid from which ester (propyl acetate) has been derived [3]

5. How can ethanol and ethnoic acid be differentiated on the basis of their physical and chemical properties. [3]

6. Three elements A,B and C have 2,3 and 4 electrons respectively in their outer most shell. Write their group number to which they belong in the modern periodic table and their valencies. [3]

7. Group 15	Group 16	Group 17	[3]
D	-----	A	
-----	B	C	

Elements A,B,C and D belong to groups of periodic table as shown in the table above:

- (i) Is C a metal of non-metal? _____
- (ii) Which is more reactive, C or A? _____
- (iii) Name the family to which A belongs. _____

8. Draw the structures of the following [2]

(i) Ethanoic acid

(ii) Hexyne.

SECTION C (BIOLOGY)(FOR MEDICAL STUDENTS) [Marks 10]

1. Why is DNA copying an essential part of the process of reproduction? [2]

2. Give two reasons for the appearance of variations among the progeny formed by sexual reproduction. [3]

3. Differentiate between homologous and analogous organs [2]

4. With the help of flow chart show sex determination in humans. [3]

SAMPLE PAPER