**Instructions to Students: Read all the questions thoroughly and write down the answers.**

**This question paper contains a total of 4 parts. They are**

1. **There will be 4 questions. Each question carries 4 marks. Answer all the questions.**
2. **There will be 6 questions. Each question carries 2 marks. Answer all the questions.**
3. **There will be 7 questions. Each question carries 1 mark. Answer all the questions.**
4. **There will be 10 multiple choice questions each question carries ½ mark. Answer all the questions.**
5. **Answer all the questions. Each question carries 4 marks 4 x 4 =16**
6. How do you find the focal length of a lens experimentally? Explain.
7. Describe the mirror pole, centre of curvature, focal length and radius of curvature of spherical mirrors.
8. Explain the reaction of barium chloride with sodium sulphate and write its chemical equation.
9. Explain how the three quantum numbers are useful to estimate the position of the electron in an atom.
10. **Answer all the questions. Each question carries 2 marks 6 x 2 =12**
11. Give the uses of baking soda and washing soda.
12. Why does the sky appear blue in some times?
13. Differentiate between a Real and Virtual image.
14. What is a pH scale? What is the pH range?
15. How is hypermetropia defect corrected?
16. Draw the experimental diagram showing that an acid solution dissolved in water has electrical conductivity?
17. **Answer all the questions. Each question carries 1 mark 7 x 1 = 7**
18. Write an example for exothermic reaction?
19. Write the principle of lens making and name the terms.
20. What is an orbital?
21. If the object is in the centre of the mirror and its focal point, where will the image of the object be formed?
22. Write the chemical formula of propane.
23. How do light rays fall on a curved surface? Explain.
24. What is an electron configuration?
25. **Answer all the questions. Each question carries 1/2 mark 10 x 1/2 = 5**
26. The centre of a curved surface is called
27. Pole b. Ray of curvature
28. Centre of curvature d. None of the above
29. The common element in all acids is \_\_\_\_\_\_\_\_\_\_.
30. Hydrogen b. Oxygen
31. Chlorine d. Nitrogen
32. What is the angle of vision for a healthy human being?
33. 25 degree b. 60 degrees
34. 10 degree d. 50 degrees
35. Which lens does the ' 〖 ' symbol indicate?
36. Biconvex lens b. Plano concave Lens
37. Biconcave Lens d. Plano Convex lens
38. What is formed when hydrogen react with oxygen?
39. Petrol b. Mercury
40. Water d. Kerosene
41. What do metal carbonates and all metallic hydrogen carbonates form when they react with acids?
42. Salt b. Water
43. CO ¬ 2 Gas d. All correct
44. The line drawn from the centre of curvature to any point on the curved surface ..................... to Principal axis
45. Sloping b. In any way
46. Perpendicular to d. Is parallel
47. What is the part in the human eye which is visible from outside?
48. Iris b. Cornea
49. Lens d. Iris
50. Where does the light fall on a curved surface when it travels from a rarer medium to denser medium?
51. away from the normal b. can get deviation anywhere
52. Close to normal d. On the normal
53. The vision defect that decreases the ability of the lens to adjust by age is called
54. Food b. Myopia
55. Long Sight d. A, B, & C