**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. Describe the formation of an image with a concave mirror.
7. What is Periodic property? Describe the variation of molecular properties, period and group based on (A) atomic radius (b) ionization energy (c) electron affinity (d) electronegativity
8. On which of the following factors does the focal length of the lens depend? Explain
9. How are elements divided into S, p, D, f blocks? What are the adaptations of this type of classification?
10. **Answer all the questions. Each question carries 2 marks 6 x 2 =12**
11. Write the Mirror principle?
12. In an atom, the number of electrons in an atom M-shell are equal to those in K and L. How many electrons are there in its outermost shell?
13. What are the rules of sign convention?
14. What is neutralization? Explain with an example.
15. What is an emission spectrum?
16. How do you correct myopia?
17. **Answer all the questions. Each question carries 1 mark 7 x 1 = 7**
18. If the object is at the centre of the focal point, where will the image of the object be formed?
19. What is an exothermic reaction?
20. Write the chemical formula of propane.
21. Write any 3 uses of concave mirrors in daily life.
22. Write the expansion of the term STP?
23. What are the uses of by plaster of Paris?
24. What is dispersion of light?
25. **Answer all the questions. Each question carries 1/2 mark 10 x 1/2 = 5**
26. The line joining the centre of curvature and the pole is called?

A. Principal ray B. Principal axis C. Curvature Ray D. None

1. Which acid is released in stomach?
2. Hydrochloric acid B. Acetic acid C. Tartaric acid D. All
3. The human eye is based on which Principle

A. Principle of sensation of Vision B. Principle of touch C. Principle of sound D. None

1. What is the minimum number of curved surfaces for any lens?
   * 1. 0 B. 3 C. 1 D. 2
2. Which is the smallest particle involved in a chemical reaction?

A. Molecule B. Ion C. Atom D. None

1. pH indicates\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. A number used to indicate the alkaline nature of a liquid..
3. A number used to indicate the acidic or basic nature of a liquid.
4. A number used to indicate the acidic nature of a liquid.
5. None
6. Which principle do we use for refraction of light at curved surface?

A. n1 / v - n2 / u = (n2 - n1) / R. B. n2 / v - n1 / u = (n1 - n2) / R

C. n2 / v - n1 / u = R / (n2 - n1) D. n2 / v - n1 / u = (n2 - n1) / R

1. The scientist Flank belongs to \_\_\_\_\_\_\_\_

A. Germany. B. Japan C. Italy D. America

1. What is the minimum distance between the real object and the true image in a concave mirror?

A. 2f B. f C.0 D. f/2

1. What is the possible value of angular momentum quantum number (l) for each value of principal quantum number (n)?
2. 0 to (n-1) B. 2 to n C. 3 to -n D. All