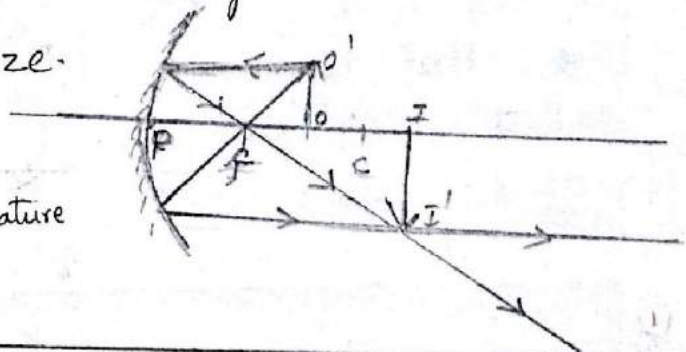


F.A-1 Set-1 key paper

I 1 When we place an object, on the principle axis of a concave mirror at a point between focus and centre of curvature image formed beyond centre of curvature.

Character of image :- (1) The image is real, (2) inverted and increased the size.

P = Pole
 f = Focus
 C = Centre of curvature
 OO' = object
 II' = Image



2. I will clarify to my friend about chemical double displacement reaction by showing these experiments

- ① Take 1 gram of lead nitrate and dissolve in 5ml water in a test tube
- ② Take 1 gram of potassium iodide in a test tube and dissolve in water.
- ③ Mix these two, a yellow colour substance which is insoluble in water is formed.



- ② Mix sodium sulphate solution and Barium chloride solution
 - ③ We observe white coloured Barium sulphate precipitation is formed
- $$\text{Na}_2\text{SO}_4 + \text{BaCl}_2 \longrightarrow \text{BaSO}_4 + 2\text{NaCl}$$

The above two reactions which two opposite ions exchange their places each other. These reactions are called double displacement reactions.

II 3. Uses of concave mirror

- ① used as reflectors in torches, vehicle headlights and search lights
- ② used as shaving mirrors

3. used by ENT doctors and dentists
4. used in the field of solar energy to focus sun's rays for heating solar furnaces

4. Oxidation	Reduction
<p>1. oxygen is gained by reactant (or) hydrogen is lost by in the reaction then that reaction is called oxidation</p> $\underset{(s)}{Cu} + \underset{(g)}{O_2} \xrightarrow{\text{heat}} 2CuO$	<p>1. oxygen is lost or hydrogen is gained by the reactant then that type of reaction is called reduction</p> $\underset{(s)}{CuO} + \underset{(g)}{H_2} \xrightarrow{\text{heat}} \underset{(s)}{Cu} + H_2O$

III
5. The relation between focal length and radius of curvature is $R = 2f$ (or) $f = R/2$

6. The heat energy required to change in the state of matter at constant temperature is called Latent heat.

$$\text{Latent heat} = \frac{\text{heat energy (Q)}}{\text{Mass (M)}} \left[\frac{\text{cal}}{\text{gram}} \right]$$

- IV
7. A
8. B/A/D
9. B
10. A
11. C
12. C