**B.C.M.SCHOOL BASANT AVENUE, DUGRI ROAD, LUDHIANA**

**CLASS-X**

**SUBJECT - SCIENCE**

**(BIO - LIFE PROCESSES & PHY - LIGHT)**

**MCQ**

**1. Magnification produced by the rear-view mirror fitted in vehicles**

**(a) is equal to one (b) is greater than one**

**(c) is less than one**

**(d) depends on distance and height of the vehicle behind the driver's vehicles.**

**2. Which part of nephron allows the selective reabsorption of useful substances like glucose, amino acids, salts and water into the blood capillaries?**

**(a) Tubule**

**(b) Glomerulus**

**(c) Bowman's capsule**

**(d) Ureter**

**ASSERTION/REASON**

**(a) Both A and R are true and R is the correct explanation of A.**

**(b) Both A and R are true but R is not the correct explanation of A.**

**(c) A is true but R is false.**

**(d) A is false but R is true.**

**3. Assertion (A) : Carbohydrate digestion mainly takes place in the small intestine.**

**Reason (R) : Pancreatic juice contains the enzyme lactase.**

**4. Assertion(A) : The centre of curvature is not a part of the mirror. It lies outside its reflecting surface.**

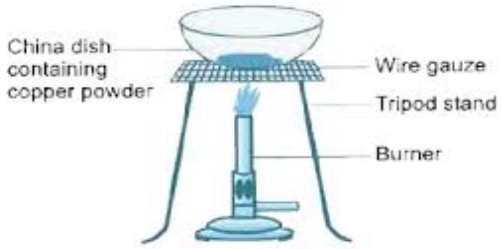
**Reason (R) : The reflecting surface of a spherical mirror forms a part of a sphere. This sphere has a centre.**

**5. Under what condition in an arrangement of two plane mirrors, incident ray and reflected ray will always be parallel to each other, whatever may be angle of incidence. Show the same with the help of a diagram.**

**6. An object is placed in front of a concave mirror of focal length 40 cm to obtain an image 3/4$^{th}$ the size of the object. Calculate the position of the object in front of the mirror.**

**7. Study the given diagram and answer the following questions : (a) Write the chemical reaction involved in the process. (b) Mention the colour of : (i) Copper powder and (ii) the substance**

**formed after heating it. (c) How can we reverse the above reaction ? Write the equation for the reverse reaction and state the substance that under-goes oxidation and the substance that undergoes reduction.**




**8. a) For the same angle of incidence in media P, Q and R, the angles of refraction are 45°, 35° and 15° respectively. In which medium will the velocity of light be (i) minimum (ii) maximum? Give reason for your answer.**

**(b) When light enters from air to glass, the angles of incidence and refraction in air and glass are 45° and 30° respectively. Find the refractive index of glass.**

**9. Draw a schematic representation of transport and exchange of oxygen and carbon dioxide during transportation of blood in human beings and label on it: Lung capillaries, Pulmonary artery to lungs, Aorta to body, Pulmonary veins from lungs.**

**10. Answer question numbers (a) -(d) on the basis of your understanding of the following paragraph and the related studied concepts : If you carefully observe a cross-section of a leaf under the microscope shown in Fig. 6.4, you will notice that some cells contain green dots. These green dots are cell organelles called chloroplasts which contain chlorophyll.**

**(a) What is the role of these dots that contain chlorophyll.**

**(b) What is the main difference you see between upper and lower epidermis ?**

**(c) What is the role of air spaces ?**

**(d) Name the layer of cells that contain chloroplasts.**