	BCM SCHOOL BASANT AUENUE, DUGRI LUDHIANA **XI BIO ASSIGNMENT** **ANSWER KEY**	
1	**A-(ii),B-(i),C-(iv),D-(iii)**	
2	**PSII, plastoquinone, cytochromes, PSI and ferredoxin.**	
3	**(i) Incorrect, (ii) Correct, (iii) Incorrect, (iv) Correct**	
4	**Root is the organ which shows the features given in the question. Vascular bundles are present on separate radii thus called radial arrangement.**	
5	**Function of each**	
6	**3 molecules of ATP are required for phosphorylation and 2 molecules of NADPH are required for the reduction of carbon dioxide. This reaction occurs in the stroma of the chloroplast.**	
7	**The name of the process is cellular respiration. It is a catabolic process because it involves the breakdown of the glucose molecule. Raw materials involved in the cellular respiration process are glucose molecule and oxygen .**	
8	**complete the respiration process, the steps can be arranged in the following sequential manner:** **1. Pulmonary ventilation: This is the process of breathing, where atmospheric air is drawn into the lungs and carbon dioxide-rich air from the alveoli is expelled out. This step initiates the respiratory process.** **2. Diffusion of gases across the alveolar membrane: Once the air reaches the alveoli, oxygen (O_2) diffuses from the alveoli into the blood, while carbon dioxide (CO_2) diffuses from the blood into the alveoli.** **3. Transport of gases by blood: The oxygen that has entered the blood is then transported by the bloodstream to various tissues throughout the body.** **4. Diffusion of O_2 and CO_2 between blood and tissues: At the tissue level, oxygen diffuses from the blood into the cells, while carbon dioxide produced by cellular metabolism diffuses from the cells into the blood.** **5. Utilisation of O_2 by the cells for catabolic reactions and resultant release of CO_2: The cells utilize the oxygen for metabolic processes, leading to the production of energy and the release of carbon dioxide as a waste produc**	
9	**a.Tubular epithelial cells perform reabsorption either by active or passive mechanisms.** **b.podocytes in inner epithelium of Bowman's cpsule in the kidney.** **c. maintain osmoregulation (detail)**	