

BCM SCHOOL BASANT AVENUE, DUGRI LUDHIANA
XI BIOLOGY
ASSIGNMENT ANSWER KEY

1	c	
2	<ul style="list-style-type: none"> • Erythrocytes have a red coloured, iron containing complex protein named as haemoglobin. Haemoglobin gives the red colour to the Erythrocytes, hence the colour and name of these cells is Red Blood Cells. • . Leucocytes are also known as white blood cells. Leucocytes are categorised into two main categories of WBCs – granulocytes and agranulocytes. <ul style="list-style-type: none"> • Granulocytes – Neutrophils, eosinophils and basophils are different types of granulocytes. • Granulocytes – Lymphocytes and monocytes are the agranulocytes. ○ Platelets release a variety of substances which are involved in the coagulation or clotting of blood. A reduction in their number can lead to clotting disorders which will lead to excessive loss of blood from the body. 	
3	Haemoglobin	
4	d	
5	Diagram from NCERT	
6	One difference each .	
7	<p>Substances that absorb light at specific wavelengths are called pigments. This implies that different pigments absorb light of different colours. Pigments have the property of excitability. Pigments get excited by absorbing light and providing energy. They send electrons in an excited state. This light can be utilised for the next steps of photosynthesis.</p> <p>The most abundant pigment in plants is chlorophyll A. It shows optimum efficiency between red and blue wavelengths. This property is also shown by other pigments but is primarily shown by chlorophyll A. By exhibiting the property of maximum absorption and excitation during the emission of red and blue wavelengths; chlorophyll A initiates the process of photosynthesis.</p>	
8	<p>The full form of RuBisCO is ribulose-1,5-bisphosphate carboxylase/oxygenase. RuBisCO is formed from Ribulose bisphosphate (RuBP), a five-carbon ketose sugar. RuBisCO is termed the most abundant enzyme on earth. It has a unique feature where it has two active sites and can bind with CO₂ and O₂. The relative concentration of CO₂ and O₂ determines which of the two will bind to this enzyme. This enzyme is present in bundle-sheath cells that are around the vascular bundles. However, they are absent in mesophyll cells of C₄ plants. The Calvin cycle occurs in the bundle sheath of C₄ plants.</p>	