Biology - FSC Part 1 Biology English Medium Chapter 11 Preparation

Q1. How organisms respiration is different from cellular respiration?

Ans 1: Organismic respiration: The exchange of respiratory gases between the organisms and its environment is called external respiration.

Ans 2: Cellular respiration: The oxidation process in which inhaled oxygen is used to oxidize organic molecule to obtain energy.This reaction takes place inside the cell so it is also known as cellular respiration.

Q2. What is calvin Benson cycle?

Ans 1: The reaction of photosynthesis which takes place in the absence of light is called dark reaction.This reaction reduces the CO_2 by using products of light reaction i.e ATP and NADPH and carbohydrates are produces.

Q3. Write down the name of main phases of glycolysis.

Ans 1: Two main phases of glycolysis are:

1. Preparatory phase
2. Oxidation phase

Q4. What is the function of Mg in chlorophyll molecule?

Ans 1: An atom of magnesium is present in the center of porphyrin ring and is coordinated with the nitrogen of each porphyrin ring.

Q5. What is "Z" scheme?Why it is called so?

Ans 1: Flow of electron in noncyclic electron chain is called Z-scheme.The path of electrons through the two photosystems during non-cyclic photophosphorylation is known as Z scheme from its shape.

Q6. What are products of light reaction of photosynthesis.

Ans 1: $NADPH_2$ and ATP are products of light reaction.

Q7. What are cytochromes?Give its role.

Ans 1: Synthesis of ATP in the presence of oxygen is called oxidative phosphorylation.

Q8. Differentiate between internal respiration and external respiration.

Ans 1: External respiration: The exchange of respiratory gases between the organism and its environment is called external respiration.

Ans 2: Internal respiration: The oxidation process in which inhaled air is used to oxidized organic molecule to obtain energy.This reaction takes place inside the cell so it is also known as cellular respiration .

Q9. What are similarities between the chlorophyll and haemoglobin?

Ans 1:

1. Heme portion of hemoglobin is also porphyrin ring which is similar to porphyrin ring of chlorophyll but heam contains an iron atom instead of magnesium atom in the center

Q10. Define accessory pigments and its role n transferring of energy,

Ans 1: Carotenoids and chlorophyll are accessory pigments because they absorb light and transfer the energy to chlorophyll a which then initiated the light reactions.