



12 a Analyze the source of energy and energy harvesting mechanism of photosynthesis.

OR

b Describe the Red drop and Emerson Enhancement effect.

13 a Sketch the light independent reactions of photosynthesis.

OR

b Summarize the Crassulacean Acid Metabolism.

14 a Analyze the respiratory substrates and respiratory quotients.

OR

b Describe the structure of ATP and its significance.

15 a Explain the process of nitrogen fixation in root nodules.

OR

b Summarize the synthesis of amino acids.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL Questions Carry EQUAL Marks (3 x 10 = 30)**

16 Compare the laws of thermodynamics.

17 Identify the components of photosystem I and photosystem II.

18 Compare C<sub>3</sub> and C<sub>4</sub> plants and highlight the factors affecting photosynthesis.

19 Summarize the Krebs cycle and its path to link metabolism.

20 Discuss the sources of nitrogen to plants and reduction of nitrates in plant tissues.

Z-Z-Z

END