

Worksheet
Class XI
Biology
Photosynthesis in Higher Plants

NAME-

DATE-

SECTION -A

Q1. In which organelle does photosynthesis take place?

Q2. Why does chlorophyll appear green?

Q3. Which chlorophyll is termed as universal photosynthetic pigment?

Q4. Which type of chlorophyll absorbs 680nm wavelength of light and is present in photosystem II?

Q5. Which is CO₂ acceptor in C₃ plant?

SECTION-B

Q1. Differentiate between chlorophyll *a* and chlorophyll *b*.

Q2. What is photosystem? Which is the pigment that acts as reaction centre?

Q3. What is photophosphorylation? Where does it occur in the leaves?

Q4. What is the significance of photorespiration?

Q5. Which would happen to the rate of photosynthesis in C₃ plants if the CO₂ concentration level almost doubles from its present level in atmosphere?

SECTION -C

Q1. Where does cyclic photophosphorylation take place in the leaves? Explain the events in sequence. Why is this process called cyclic?

Q2. Tabulate the difference between C_3 and C_4 cycle.

Q3. What is the law of limiting factors? Explain this with a suitable example.

SECTION -D

Q1. Describe carbon reactions of the C_3 pathway. Does this pathway also operate in C_4 plants?

Q2. What is C_4 pathway? Explain its significance.