

Chapter 6 photosynthesis

1. **Assertion:** Energy is utilized from sunlight by plants during photosynthesis. It is the basis of life on our planet.

Reason: Photosynthesis is the primary source of all food on earth and it is also responsible for the release of oxygen into the atmosphere.

- A. Both assertion and reason are correct
- B. Assertion is correct but reason is incorrect
- C. Assertion is incorrect but reason is correct
- D. Both assertion and reason are incorrect

2. **Assertion:** Leaf colouration is due to the presence of four pigments – Chlorophyll a, chlorophyll b, xanthophylls and carotenoids.

Reason : Chlorophyll b is the chief pigment associated with photosynthesis.

- A. Both assertion and reason are correct
- B. Assertion is correct but reason is incorrect
- C. Assertion is incorrect but reason is correct
- D. Both assertion and reason are incorrect

3. **Assertion:** Chloroplasts mostly occur in mesophyll cells along their walls inside the leaves.

Reason : The membrane system of chloroplast is responsible for trapping the light energy and also for the synthesis of ATP and NADPH.

- A. Both assertion and reason are correct
- B. Assertion is correct but reason is incorrect
- C. Assertion is incorrect but reason is correct
- D. Both assertion and reason are incorrect

4. **Assertion:** 6 molecules of CO_2 and 12 molecules of $\text{NADPH}^+ + \text{H}^+$ and 18 ATP are used to form one glucose molecule.

Reason : Light reaction results in formation of ATP and NADPH_2 .

- A. Both assertion and reason are correct
- B. Assertion is correct but reason is incorrect
- C. Assertion is incorrect but reason is correct
- D. Both assertion and reason are incorrect

5. **Assertion:** plants does photosynthesis during day and respiration during night.

Reason: Photosynthesis occur in the presence of sunlight whereas respiration don't.

- A. Both assertion and reason are correct
- B. Assertion is correct but reason is incorrect
- C. Assertion is incorrect but reason is correct
- D. Both assertion and reason are incorrect