

Class 10 Science – Life Processes – Topic: Nutrition in Living Organisms (Topic Test)

ALPHA CLASSES DEOBAND | Session 2026–27 | CBSE Board Pattern

Name: _____ Roll No.: _____ Date: _____

Time: 40 minutes | Maximum Marks: 25

General Instructions: - All questions are compulsory. - Write neat and well-labelled answers. - Marks are indicated against each question.

Section A – Very Short Answer (1 mark each)

Q1. Define autotrophic nutrition in one sentence. [1 mark]

Q2. Name the enzyme present in saliva and state what it acts on. [1 mark]

Q3. What is the role of bile in digestion? [1 mark]

Q4. State one difference between egestion and excretion. [1 mark]

Section B – Short Answer Type (2 marks each)

Q5. Write the balanced chemical equation for photosynthesis. Name the by-product released. [2 marks]

Q6. Why is the small intestine considered the most important organ for both digestion and absorption? [2 marks]

Q7. Distinguish between absorption and assimilation. [2 marks]

Q8. Name the digestive juice secreted by the stomach. State two functions of hydrochloric acid (HCl) in gastric juice. [2 marks]

Section C – Short Answer Type II (3 marks each)

Q9. Compare autotrophic and heterotrophic nutrition in a table with any three points of difference. [3 marks]

Q10. Describe the role of the following in human digestion: [3 marks] (a) Salivary amylase (b) Pepsin (c) Bile

Q11. What are villi? How do they help in the absorption of food? What would happen if the villi in a person's small intestine were damaged? [3 marks]

Section D – Long Answer / HOTS (4 marks)

Q12. A student performed an experiment: she covered one half of a leaf of a potted plant with black paper and placed the plant in bright sunlight for 6 hours. She then removed the leaf and tested it with iodine solution.

- a. What result would the covered part of the leaf show? [1 mark]
 - b. What result would the uncovered part of the leaf show? [1 mark]
 - c. Name the substance whose presence is being tested by iodine. [1 mark]
 - d. What does this experiment prove about the conditions necessary for photosynthesis? [1 mark]
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All the best!
