

Model Question Paper (2026–27)

Class 11 – Agriculture (Code 815)

Time: 2 Hours 30 Minutes

Maximum Marks: 60

Section A – Objective Type Questions

(15 × 1 = 15 Marks)

Multiple Choice Questions (6)

1. Which instrument is used to measure atmospheric pressure?
 - a) Hygrometer
 - b) Barometer
 - c) Anemometer
 - d) Rain gauge
2. The process by which homologous chromosomes exchange segments is called:
 - a) Mutation
 - b) Replication
 - c) Crossing over
 - d) Translation
3. Which breeding method is commonly used in self-pollinated crops?
 - a) Pure line selection
 - b) Artificial insemination
 - c) Crossbreeding
 - d) Hybrid vigour
4. Glycolysis is associated with the metabolism of:
 - a) Proteins
 - b) Lipids
 - c) Carbohydrates
 - d) Minerals
5. Which microorganism helps in biological nitrogen fixation?
 - a) Rhizobium
 - b) Yeast
 - c) Virus
 - d) Algae
6. A balanced ration for livestock means:
 - a) Only green fodder
 - b) Only concentrates
 - c) Feed containing all nutrients in proper proportion
 - d) Mineral mixture only

Fill in the Blanks (3)

7. The process of formation of dew occurs due to _____.
8. DNA stands for _____.

9. The housing system for birds is related to _____ farming.

One Word Answer Questions (3)

10. Unit of heredity.

11. Scientist known as the Father of Microbiology.

12. Transfer of pollen from anther to stigma is called _____.

Assertion–Reason Questions (3)

13. **Assertion (A):** Global warming affects agricultural production.

Reason (R): Climate change alters rainfall and temperature patterns.

14. **Assertion (A):** Mitosis produces genetically identical cells.

Reason (R): Crossing over occurs during mitosis.

15. **Assertion (A):** Mineral mixture is essential in animal feeding.

Reason (R): Minerals help in growth and reproduction.

Section B – Very Short Answer Questions

(6 × 2 = 12 Marks)

Q16.

Define lapse rate.

OR

What is temperature inversion?

Q17.

State any two Mendelian laws of inheritance.

OR

Differentiate between mitosis and meiosis (any two points).

Q18.

What is apomixis? Mention one advantage.

OR

What is micropropagation?

Q19.

Define enzyme and write any one function of enzymes.

OR

What are amino acids?

Q20.

What is biofertilizer? Give one example.

OR

Define mycorrhiza.

Q21.

What is artificial insemination?

OR

Define balanced ration.

Section C – Short Answer Questions

(6 × 3 = 18 Marks)

Q22.

Explain the importance of monsoon in Indian agriculture.

Q23.

Describe mutation and its significance in crop improvement.

Q24.

Explain any three applications of recombinant DNA technology.

Q25.

Discuss the classification of carbohydrates with examples.

Q26.

Explain the role of microorganisms in the nitrogen cycle.

Q27.

Describe the care and management of newly born calves.

Internal Choice (Attempt any one of the following in Q24 or Q26):

Alternative to Q24: Explain somaclonal variation and its importance.

Alternative to Q26: Differentiate between symbiotic and asymbiotic nitrogen fixation.

Section D – Essay Type Questions

(3 × 5 = 15 Marks)

Q28.

Discuss the causes of climate change and its impact on agriculture.

OR

Explain different types of precipitation and their agricultural importance.

Q29.

Describe various methods of plant breeding used in self-pollinated and cross-pollinated crops.

OR

Explain the concept, scope and applications of plant biotechnology.

Q30.

Discuss the importance of livestock in the Indian economy and explain the principles of animal nutrition and feeding practices.

OR

Describe important diseases of livestock and poultry, their symptoms and management.
