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FOR HARYANA CLASS 9 PREPARATION

HBSE Class 9 Sample Paper 2027 Agriculture Marking Scheme

EXAM	YEAR	TYPE	SUBJECT
Haryana Class 9	2027	Answer Key	Agriculture

ANSWER KEY
MODEL QUESTION PAPER (Class IX – Agriculture)

SECTION A – OBJECTIVE QUESTIONS (1 Mark Each)

1. Earthworms
2. Grafting
3. Agronomy
4. No ploughing before sowing
5. Nitrogen
6. Soil acidity or alkalinity
7. M. S. Swaminathan
8. Dew
9. Nitrogen
10. Rain Gauge
11. Topsoil
12. Ovary
13. (a) Both A and R are true and R is the correct explanation.
14. (a) Both A and R are true and R is the correct explanation.
15. (a) Both A and R are true and R is the correct explanation.

SECTION B – VERY SHORT ANSWER QUESTIONS (2 Marks Each)

16. **Define Agriculture and Agronomy**.
    Answer:
    • Agriculture is the science and art of cultivating crops and rearing animals for human use.
    • Agronomy is the branch of agriculture dealing with field crop production and soil management.
17. **Differentiate between Soil and Land.**
    Answer:

Soil	Land
Natural medium for plant growth.	Total area of earth's surface used for various purposes.
Consists of minerals, organic matter, water and air.	Includes soil, vegetation, water bodies and other resources.

18. **What is humidity? Mention one effect of humidity.**
    Answer:
    Humidity is the amount of water vapour present in the atmosphere.
    Effect: High humidity reduces the rate of evaporation and transpiration.
19. **Write any two functions of roots.**
    Answer:
    • Absorb water and minerals from soil.
    • Anchor the plant firmly in the soil.

20. **Write any two advantages of organic manure.**
Answer:
• Improves soil fertility.
• Enhances water-holding capacity of soil.
21. **Name any two major fruit crops grown in India.**
Answer:
• Mango
• Guava
(Other acceptable answers: Grapes, Citrus, Peach, Berry)

SECTION C – SHORT ANSWER QUESTIONS (3 Marks Each)

22. **Explain any three types of farming.**
Answer:

- Subsistence Farming – Production mainly for family consumption.
- Commercial Farming – Crops grown for sale and profit.
- Mixed Farming – Combination of crop production and livestock rearing.

23. **Describe the process of soil formation.**
Answer:
Soil is formed by weathering of rocks through physical, chemical and biological processes. The broken rock particles mix with organic matter over a long period to form soil.
24. **Write a short note on soil fertility and productivity.**
Answer:
• Soil fertility is the ability of soil to supply essential nutrients to plants.
• Soil productivity is the capacity of soil to produce crops under suitable management.
• Fertile soil generally gives higher productivity.
25. **Explain three methods of fertilizer application.**
Answer:

- Broadcasting – Fertilizer is spread uniformly over the field.
- Placement – Fertilizer is placed near the root zone.
- Foliar Spray – Nutrients are sprayed directly on plant leaves.

26. Distinguish between racemose and cymose inflorescence.

Racemose	**Cymose**
Main axis continues to grow.	Main axis ends in a flower.
Flowers develop in acropetal order.	Flowers develop in basipetal order.
Younger flowers are towards the top.	Younger flowers are towards the base.

27. **Explain the layout of an orchard.**
Answer:

• Orchard layout is the systematic arrangement of fruit trees in a field.
• It ensures proper spacing, irrigation and sunlight.
• Common systems include square, rectangular and hexagonal layouts.

SECTION D – LONG ANSWER QUESTIONS (5 Marks Each)

28. Explain the composition of atmosphere and atmospheric weather variables.

Answer:
The atmosphere is a layer of gases surrounding the earth. Its major components are:
• Nitrogen – 78%
• Oxygen – 21%
• Argon and other gases – about 1%
• Carbon dioxide, water vapour and dust particles in small amounts.

Atmospheric weather variables include:
• Temperature
• Humidity
• Wind
• Atmospheric pressure
• Rainfall and other forms of precipitation

OR

Atmospheric pressure is the force exerted by air on the earth's surface. It decreases with increase in altitude.

Types of winds:
• Permanent winds
• Seasonal winds
• Local winds

Winds influence temperature, rainfall and crop production.

29. Discuss essential plant nutrients and deficiency symptoms of any three nutrients.

Answer:
Essential plant nutrients are elements necessary for normal growth and development of plants.

Major nutrients:
• Nitrogen (N)
• Phosphorus (P)
• Potassium (K)

Deficiency symptoms:

1. Nitrogen – Yellowing of older leaves and poor growth.
2. Phosphorus – Stunted growth and purple coloration of leaves.
3. Potassium – Yellowing and scorching of leaf margins.

Balanced nutrient supply improves crop yield and quality.

OR

Soil pH is the measure of acidity or alkalinity of soil.
• pH less than 7 = Acidic soil
• pH equal to 7 = Neutral soil
• pH more than 7 = Alkaline soil

Effects:
• Influences nutrient availability.
• Affects microbial activity.
• Determines crop suitability.

30. Describe cultivation practices of mango and guava along with important pests and diseases.

Answer:
Mango:
• Requires warm climate and well-drained soil.
• Propagated mainly through grafting.
• Regular irrigation and fertilization are essential.

Guava:
• Grows well in tropical and subtropical regions.
• Requires proper pruning and nutrient management.

Important pests:
• Fruit fly
• Mango hopper

Important diseases:
• Powdery mildew
• Anthracnose

Control measures:
• Use healthy planting material.
• Maintain orchard sanitation.
• Apply recommended pesticides and fungicides.

OR

Importance of Fruits:
• Rich source of vitamins and minerals.
• Improve human health and nutrition.
• Provide income to farmers.

Irrigation Requirements:
• Regular irrigation during dry periods.
• Avoid waterlogging.

Fertilization Requirements:
• Apply organic manure and chemical fertilizers as recommended.
• Balanced fertilization improves growth, yield and fruit quality.

This answer key can be used directly for evaluation and awarding marks according to the Haryana Board Class IX Agriculture pattern.