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FOR HARYANA CLASS 12 PREPARATION

HBSE Class 12 Sample Paper 2027 Agriculture Marking Scheme

EXAM	YEAR	TYPE	SUBJECT
Haryana Class 12	2027	Answer Key	Agriculture

Answer Key – HBSE Class 12 Agriculture (815)

Model Question Paper

Section A – Objective Questions (15 Marks)

MCQs

1. **b)** Mixed cropping
2. **c)** Phosphorus
3. **c)** Pressure irrigation
4. **b)** Cotton
5. **c)** Fruit crop
6. **c)** Gerbera

Fill in the Blanks

7. **Soil** fertility
8. **Drip** irrigation
9. **Weed control (Weeding)**

One Word Answers

10. **pH meter**
11. **Sunhemp / Dhaincha**
12. **Wheat** (Rice/Maize also acceptable)

Assertion–Reason

13. **Both A and R are true, and R is the correct explanation of A.**
14. **A is true, but R is false.**
15. **A is true, but R is false.**

Section B – Very Short Answer Questions (2 Marks Each)

16. Define crop rotation and mention one advantage.

Answer: Crop rotation is the practice of growing different crops in succession on the same field in a definite sequence.
Advantage: Maintains soil fertility and reduces pest and disease incidence.

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17. What is soil fertility? How is it different from soil productivity?

Answer:

- **Soil fertility:** Ability of soil to supply essential nutrients to plants.
- **Soil productivity:** Capacity of soil to produce crops under a given management system. Productivity depends on fertility along with climate, water and management practices.

18. Write any two harmful effects of weeds.

Answer:

1. Compete with crops for nutrients, water and sunlight.
2. Reduce crop yield and quality.

19. What is drainage? / What is water-use efficiency?

Drainage: Removal of excess water from soil to provide suitable conditions for plant growth.

OR

Water-use efficiency: Ratio of crop yield produced per unit of water used by the crop.

20. Name any four pulse crops.

Answer:

- Chickpea
- Pea
- Pigeon pea (Arhar)
- Mungbean
  (Any four)

21. What is parthenocarpy? / What is pruning?

Parthenocarpy: Development of fruits without fertilization, producing seedless fruits.

OR

Pruning: Removal of unwanted branches or plant parts to improve growth and yield.

Section C – Short Answer Questions (3 Marks Each)

22. Explain the classification of crops on the basis of seasons.

Answer:

1. **Kharif Crops:** Sown in June–July and harvested in September–October (Rice, Maize, Cotton).
2. **Rabi Crops:** Sown in October–November and harvested in March–April (Wheat, Barley, Mustard).
3. **Zaid Crops:** Grown between Rabi and Kharif seasons (Watermelon, Muskmelon).

23. Describe any three methods of fertilizer application.

Answer:

1. **Broadcasting:** Uniform spreading over the field.
2. **Placement:** Fertilizer placed near seed or root zone.
3. **Foliar Spray:** Nutrients sprayed on plant leaves.

24. Explain the importance of sprinkler and drip irrigation systems.

Answer:

- Save water and improve water-use efficiency.
- Suitable for uneven land and water-scarce areas.
- Reduce soil erosion and nutrient loss.
- Drip irrigation supplies water directly to roots and minimizes wastage.

25. Discuss integrated weed management.

Answer:
Integrated Weed Management (IWM) is the combination of cultural, mechanical, biological and chemical methods to control weeds economically and sustainably. It reduces dependence on herbicides and prevents herbicide resistance.

OR

Herbicide resistance and its management.

Answer:
Herbicide resistance is the ability of weeds to survive herbicide applications that previously controlled them.
Management:

- Rotate herbicides with different modes of action.
- Use integrated weed management.
- Prevent weed seed spread.

26. Describe the cultivation practices of wheat.

Answer:

- Well-drained loamy soil is suitable.
- Sowing time: October–November.
- Use recommended seed rate and improved varieties.
- Apply balanced fertilizers and irrigation.
- Control weeds and harvest when grains mature.

27. Explain the importance of vegetables in human nutrition and national economy.

Answer:

- Rich source of vitamins, minerals and dietary fibre.
- Essential for balanced nutrition.
- Generate employment and income.
- Contribute significantly to agricultural exports and the economy.

Section D – Essay Type Questions (5 Marks Each)

28(a). Discuss essential plant nutrients, their role and deficiency symptoms.

Answer:

Essential Nutrients: Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulphur, Iron, Zinc, Boron etc.

Nutrient	Role	Deficiency Symptom
Nitrogen	Vegetative growth	Yellowing of older leaves
Phosphorus	Root development	Stunted growth, purple leaves
Potassium	Disease resistance	Leaf scorching
Zinc	Enzyme activity	Small leaves, stunted growth
Iron	Chlorophyll formation	Yellowing of young leaves

Balanced nutrient supply ensures healthy crop growth and higher yields.

OR

28(b). Explain different organic manures and their importance.

Answer:
Organic manures include:

- Farm Yard Manure (FYM)
- Vermicompost
- Poultry Manure
- Green Manure
- Biogas Slurry
- Press Mud

Importance:

- Improve soil structure.
- Increase water-holding capacity.
- Supply nutrients slowly.
- Enhance microbial activity.
- Improve long-term soil fertility.

29(a). Describe the soil and climatic requirements, varieties and cultivation practices of cotton.

Answer:

- Cotton is an important fibre crop.
- Requires warm climate (21–30°C).
- Deep black or well-drained loamy soil is suitable.
- Sowing is done during Kharif season.
- Improved varieties are used.
- Balanced fertilizers, timely irrigation and weed control are essential.
- Harvesting is done when bolls fully open.

OR

29(b). Explain the cultivation practices of mustard or sunflower.

Answer (Mustard):

- Cool climate and well-drained soil required.
- Sown during October–November.
- Use recommended seed rate and spacing.
- Apply fertilizers and irrigation as needed.
- Harvest when siliquae turn yellow.

30(a). Discuss the production technology of mango cultivation.

Answer:

- Mango is the most important fruit crop of India.
- Requires tropical to subtropical climate.
- Propagated mainly through grafting.
- Well-drained soil is suitable.
- Proper spacing and orchard management are necessary.
- Irrigation, fertilization and pruning improve yield.
- Harvest fruits at proper maturity stage.

OR

30(b). Explain the cultivation of flowering crops with special reference to rose and marigold.

Answer:
Rose

- Major cut flower crop.
- Requires fertile, well-drained soil.
- Propagated through budding and cuttings.
- Regular pruning and nutrient management are essential.

Marigold

- Important loose flower crop.
- Easy to cultivate under open conditions.
- Propagated by seeds.
- Requires regular irrigation and weed control.
- Flowers are used for decoration and garlands.