

M.Sc. (Ag.) Examination, 2015
Semester – II
Agronomy : Principles & Practices of Organic Farming
Course : AGR-516

Time: 3 Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer **any five** questions.

1. Write short notes on **any five** of the following: 2×5=10
 - (a) Prospects of organic farming in India
 - (b) Organic certification
 - (c) Minimum tillage
 - (d) On-farm inputs in organic farming
 - (e) Crop rotations
 - (f) Trap crop
 - (g) Importance of agroforestry
2. Differentiate between **any five** of the following: 2×5=10
 - (a) Conventional farming and organic farming
 - (b) Green manure *in situ* and green leaf manuring
 - (c) Compost and vermicompost
 - (d) Mixed cropping and intercropping
 - (e) Mechanical control of weeds and cultural control of weeds
 - (f) Botanical pesticides and bio-pesticides
 - (g) Rainfed farming and irrigated farming
3. Define organic farming. What are the principles of organic farming? Explain the major limitations of organic farming in India. 2+4+4=10
4. Explain **any five** of the following terms: 2×5=10
 - (a) Shelter belt
 - (b) Pasture management
 - (c) Hedges
 - (d) Water use efficiency
 - (e) Biofertilizers
 - (f) Pheromones
 - (g) Relay cropping

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5. Explain the concept of farming system. Enlist some important components of farming system. Describe inter-relationship of different components of farming system with suitable examples. $2+2+6=10$
6. Discuss the organic farming practices on the following heads: $2 \times 5 = 10$
- (a) Crops and varieties
 - (b) Water management
 - (c) Weed management
 - (d) Insect pest and disease management
 - (e) Fortification of organic manure
7. What do you mean by organic manure? Give classification of organic manures with examples and content of major plant nutrients. Discuss different methods of crop residue management with their merits and demerits. $1+3+6=10$
8. Explain usefulness of **any five** of the following practices in organic farming: $2 \times 5 = 10$
- (a) Vermicomposting
 - (b) Azolla culture
 - (c) Panchagabya
 - (d) Seed inoculation with biofertilizers
 - (e) Soil solarization
 - (f) *In situ* harvesting or rain water
 - (g) Arbuscular Mycorrhizal fungi
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