

M.Sc. (Ag.) Examination, 2018
Semester-II
Agronomy
Course- AGR-516
(Principles and Practices of Organic Farming)

Time: Three Hours

Full Mark: 50

Questions are of value as indicated in the margin

Answer **any five** questions

1. Define organic farming. How does today's organic farming differ from organic farming of earlier times? Explain the scope and limitations of organic farming in India. 2+2+3+3=10
2. What do you mean by organic certification? Explain salient features of organic standard for crop production. What is the need for organic certification? 2+6+2=10
3. What is farming system? What are the major components of farming system? Briefly discuss about the interactions among different components of farming system. What are the main principles and characteristics of farming system? Write in brief about the types of farming system. 1+2+2+3+2=10
4. What do you mean by crop rotation, relay cropping and intercropping? Write various kinds of intercropping and cite example. Briefly explain the role of crop rotation and relay cropping in organic farming with special reference to eastern India. 3+2+5=10
5. What do you expect about the biotic influence in crop production under organic farming? Suggest suitable management practices for weeds, insect pests and diseases under organic farming. 2.5+7.5=10
6. Define agroforestry, conservation tillage and shelter belt. "For successful organic farming adoption of practices like conservation tillage, agroforestry and other alternative land use systems is essential" – briefly explain the statement. 3+7=10
7. Write short notes (**any four**): 2.5×4=10
 - (a) Vermiculture
 - (b) Roof top water harvesting
 - (c) Biofertilizers
 - (d) Multiple cropping
 - (e) Green leaf manure
 - (f) Pasture management
8. Explain the differences between the following (**any four**): 2.5×4=10
 - (a) Organic farming and natural farming.
 - (b) Cropping pattern and cropping system.
 - (c) *Exsitu* water harvesting and *Insitu* water harvesting.
 - (d) Carrier based biofertilizer and liquid biofertilizer.
 - (e) Competition and allelopathy in intercropping system.
 - (f) Arbuscular mycorrhizal fungi and phosphate solubilizing fungi.