

KERALA AGRICULTURAL UNIVERSITY
B.Sc. (Ag) 2006 Admission Vth Semester
Final Examination, March 2009

Agro 3107
Farming Systems and Sustainable Agriculture (2+0)

Max. Marks: 60
Time: 2 hours
(20 x 0.5 = 10)

I. Answer the following:

Choose the correct answer:

1. Which one of the following can be suitably grown as a mixed crop in wheat
a) Cabbage b) Cotton c) Jowar d) Mustard
2. Ratooning is commonly practised in
a) Sugarbeet and sugarcane b) Sugarcane and maize
c) Sugarcane and Napier grass d) Sugarcane only
3. The system of growing different crops in succession on the same land is termed as
a) Crop rotation b) Inter cropping c) Mixed cropping d) Multi-tier cropping
4. Which one of the following systems need irrigation through out the year
a) Diara land cropping system b) Inter cropping system
c) Mixed cropping system d) Multiple cropping system
5. If a farmer practices sugarcane - cotton - wheat, the cropping intensity in the farm will be
a) 100 % b) 150 % c) 200 % d) 300 %
6. Which one of the following organic manure has the lowest C/N ratio?
a) Vermi compost b) Coir pith c) Groundnut cake d) Sugarcane trash
7. Which one of the following is best example of catch crop
a) Linseed b) Mustard c) Toria d) Ground nut
8. Temporal complementarity in intercropping results from
a) Growth pattern of the component crops differing in height
b) Differing in time c) Differences in yield
d) Differences in cost of cultivation
9. The most suited IFS components for high rainfall region
a) Rice + fish b) Sorghum + goat c) Sugarcane + piggery
10. Most important farming system for irrigated condition
a) Crop + Dairy b) Crop + Poultry c) Crop + goat d) Crop + Sheep

Fill up the blanks:

11. _____ is the vegetative barrier recommended for soil moisture conservation
12. _____ is an example of multi-tier cropping system
13. Shifting cultivation is most commonly followed in _____ region
14. Irrigated area in India is _____ %
15. Waste lands constitutes _____ % of total geographical area in India
16. Most commonly used fertilizer in crop production is _____
17. _____ fertilizer is imported from foreign country
18. An example of no cost technology is _____
19. _____ is an example of bio-control agent used in crop production
20. _____ is the green manure recommended for reclamation of saline / sodic soils

II. Answer the following in one or two sentences

(14 x 1 = 14)

Differentiate the following:

1. Ley farming vs Alley cropping
2. Intercropping vs mixed cropping
3. Crop diversification vs crop rotation
4. Trap crop vs decoy crops
5. Sequential cropping vs mono culture

Define:

6. Cropping system
7. Integrated farming system
8. Crop rotation
9. Homestead gardening
10. Land equivalent Ratio

Give reasons for the following:

11. Organic manures promote soil fertility
12. Ploughing across the field is recommended for soil moisture conservation
13. Legumes are intercropped with cereals
14. Rhizobium is recommended for seed inoculation of legumes

III. Write short notes with a few sentences (Any eight only)

(8 x 2 = 16)

1. Diversification of Agriculture
2. Cropping Intensity
3. Wasteland development techniques
4. Complementarity of cropping system
5. Intercropping systems
6. Agro-forestry systems
7. Organic farming and its importance
8. LEISA
9. Integrated nutrient management
10. Bio fertilizers usage in crop production

IV. Write short essays (Any Five only)

(5 x 4 = 20)

1. Discuss in detail different crop intensification techniques with suitable examples
2. Suggest appropriate agronomic measures for soil and water conservation.
3. What do you understand by INM? How does the system approach help in crop production under cropping system?
4. Explain various methods of crop residue management.
5. What is sustainable Agriculture? How does it differ from modern Agriculture? Suggest measures to sustain the green revolution.
6. Explain the importance of Integrated farming system. Narrate complementarity and synergistic influence with suitable examples of case study.