

KERALA AGRICULTURAL UNIVERSITY

B.Sc.Hons (Ag) 2014 Admission

IIIrd Semester Final Examination-February -2016

Cat. No: Ssac.2103

Marks: 50.00

Title: Organic Farming and Soil Health (1+1)

Time: 2 hours

I Answer the following

(10 x 1=10)

1. In India _____ manure provides a significant source of OM
2. Mycorrhiza enhances _____ availability
3. In recent development _____ are being used for hastening the decomposition of farm waste for composting.
4. Non legume symbiosis involves forest trees and a genus of actinomycetes called _____
5. Azolla can fix up to _____ Kg of N/ha
6. The fish manure contains approximately _____ percent of N
7. The micro organism which mobilizes P and Zn from soil to the root is _____
8. The size of bacteria is approximately 1 micron in diameter (True/False)
9. The genus Bacillus has the largest representation in soils in terms of species (True/False)
10. Hexavalent chromium are toxic to plants (True/False)

II Write short notes on any Five questions

(5 x 2=10)

1. Write short note on Azolla.
2. What are carrier based inoculants?
3. What are the products of microbial synthesis formed during aerobic decomposition?
4. Name the encrusting materials in the plant constituents
5. Briefly explain the steps in the mineralization of soil nitrogen
6. What is carbon sequestration?
7. Briefly describe the heavy metal contaminants in fertilizers as soil pollutants

III Answer any Five questions

(5 x 4=20)

1. Brief NPOP regulations for organic production
2. Bring out the importance of Soil Health Card
3. With a neat sketch explain the sulphur transformation in soil
4. Describe the techniques of enrichment with few illustrations
5. Detail the role of soil enzymes in soil fertility
6. Explain the following.
 - a) Nutrient Composition of Vermicompost
 - b) De-nitrification
 - c) Ammonification and Nitrification
7. How micro organisms are helpful in the degradation of pesticides

Marked: 20.00
Time: 1 hour

Answer any five questions (1+1)

IV Write essay on Any ONE

(1 x 10=10)

1. What are the various bio fertilizers? Explain its forms, uses and advantages,
2. Describe in detail the concepts, practices, management and components of Organic farming