

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons) Agriculture 2015 Admission
IIIrd Semester Final Examination-February 2017

Cat. No: Ssac 2103

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

Marks: 50

Time : 2 hours

I. Fill in the blanks/True or False/Define:

(10 x 1=10)

1. ----- is the percentage of absorbed nutrient used for biomass production.
2. ----- is the average time the nutrient remains in plant (y) and can be used for carbon fixation until the nutrient is lost (by leaf shedding, herbivory, root death).
3. ----- is the Crop yield increase per unit nutrient added (kg grain/kg nutrient)
4. Approximate micro nutrient use efficiency is -----
5. Conversion of soil organic P in to inorganic P is catalyzed by -----
6. ----- uptakes heavy metal eg Pb, Cu ,Cd, Hg, from contaminated water.
7. Nitrification decreases with increasing temperature.
8. Organic matters having a wide C: N ratio (above 30:1 or 30) is added to soil immobilization takes place during initial decomposition.
9. In anaerobic (reduced) soils orthophosphates are reduced to yield phosphine (PH₃, gas which is poisonous and has smell of rotten fish)
10. What is Precipitated sludge?

II. Write short notes/answers on ANY FIVE:

(5x 2=10)

1. Write short notes on non-edible oilcakes.
2. List out the organic inputs that is allowed in organic farming.
3. Significance of Carbon cycle in soil.
4. Write about Method Of Coir Pith Composting.
5. What is Nutrient Enrichment of Compost?
6. Write short notes on nitrogen fixing organisms.
7. Write short notes on role of soil enzymes in soil fertility.

III Write answers on ANY FIVE:

(5 x 4=20)

1. Nitrogen cycle and its importance in soil fertility.
2. Give an account on harmful effect of non judicious chemical fertilization.
3. Role of SOM in Soil Fertility.
4. Methods of preservation of FYM and town refuse.
5. Give an account on industrial effluents and heavy metal contamination.
6. Immobilization and Mineralization of P
7. Different products of organic matter decomposition.

IV. Write essay on any ONE

(1 x 10=10)

1. Explain in detail nitrogen transformation reactions in soil.
2. Role of organic farming in maintaining soil health.
