

29

--	--	--	--	--	--	--	--	--	--

B.E. / B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2012

AGRICULTURAL AND IRRIGATION ENGINEERING BRANCH

THIRD SEMESTER

AI 9203 – PRINCIPLES OF CROP PRODUCTION

(REGULATION 2008)

Time: 3 hours

Answer ALL Questions

Max Marks: 100

Part – A (10 x 2 = 20 Marks)

- 1) Write a note on the effect of NE and SW monsoon during 2012 in Tamil Nadu with respect to agriculture.
- 2) Expand – FACT, ICAR, MOP, IRRI
- 3) Define soil structure.
- 4) What is the function of a rotovator?
- 5) Sketch the natural nutrient cycling.
- 6) When is foliar application of nutrients given to crops?
- 7) How is the soil loss from an agricultural field calculated?
- 8) What are *sett*, *bagasse* and *molasses* in sugarcane cultivation?
- 9) What are the major divisions of horticulture? Give suitable examples.
- 10) List any 4 popular varieties each in Paddy, Mango, Banana.

Part – B (5 x 16 = 80 Marks)

- 11) a) i) Calculate the requirement of ammonium nitrate and triple super phosphate to prepare a 1000 kg of fertilizer of grade 15-10-0 (6)
ii) Discuss the post harvest handling of vegetables including the losses and control. (10)
 - 12) a) i) Explain the various factors affecting crop growth. (8)
ii) Justify how agriculture can be considered as an art, science and business? (9)
- (or)
- b) i) What is the need for the knowledge on multidisciplinary subjects in practising agriculture? (7)
ii) What are the various cropping systems? (9)
- 13) a) i) Describe the various component potentials that make up the total soil water potential. (8)
ii) Define soil texture and list the various soil textural classes according to USDA. (8)

(or)

b) i) Soil as a medium for plant growth – Discuss in detail. (8)

ii) Explain the factors affecting land degradation. (8)

14) a) i) Discuss the important features of *System of Rice Intensification (SRI)* method of rice cultivation. (8)

ii) What is *ratooning* and explain how a ratoon crop is grown? What are its advantages and disadvantages? (8)

(or)

b) i) Explain the package of practices for paddy cultivation. (9)

ii) Discuss the various special purpose crops with examples. (7)

15) a) i) Discuss the use of growth regulators in horticultural crop production. (9)

ii) What are the 12 groups into which the vegetable crops are divided based on their cultivation? Give examples. (7)

(or)

b) i) Write a detailed note on Green House cultivation of plants. (9)

ii) Discuss the precision farming practised in Tamil Nadu. (7)
