

B. E / B. Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS NOVEMBER /  
DECEMBER 2012

AGRICULTURAL AND IRRIGATION ENGINEERING BRANCH

SEVENTH SEMESTER – (REGULATION 2008)

AI 9404 IT IN AGRICULTURAL SYSTEMS

TIME: 3 hr

Max Mark: 100

Answer ALL questions

PART – A (10 x 2 = 20 MARKS)

1. What are the technologies that can be applied in precision agricultural production?
2. Explain the need for the crop growth models.
3. How to determine the heat loss from a green house?
4. Explain briefly the types of crop growth models used in plant production.
5. What is reliability and explain briefly the types of reliability?
6. Why decision support system is required in Agricultural production?
7. Define Southern Oscillation Index and explain the importance of SOI.
8. What is the basic principle involved in the Global Climatic Models?
9. Define an expert system.
10. What is the difference between e-business and e-commerce?

PART – B (5 x 16 = 80 Marks)

11. a. i Explain briefly about the application of GIS/mapping software in Precision agriculture. (8)  
a. ii How to predict the yield in precision agriculture? (8)
  12. a. i What is the need for heating system in greenhouse? Explain briefly the types of heating system used in greenhouse. (8)  
a. ii Explain briefly the factors affecting the crop growth management. (8)
- OR
12. b. i What is the need for summer cooling? Explain briefly the types of summer cooling equipments used in greenhouse. (8)  
b. ii Explain briefly the application of expert system in Horticulture. (8)
  13. a. i Explain briefly about the factors affecting the Agricultural system and ASM's decision making process. (8)  
a. ii Consider two crops 1 and 2. One unit of crop 1 brings four units of profit and one unit of crop 2 brings five units of profit. The demand of production of crop 1 is A units and that of