

Total No. of Questions : 08]

SEAT No. :

P3623

[Total No. of Pages : 2

[4959] - 1110
B.E. (Electronics)
Electronics in Agriculture
(2012 Pattern) (Semester - I)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:-

- 1) *Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6 and Q7 or Q8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Assume suitable data if necessary.*

- Q1)** a) Explain functional block diagram of computer control system for monitoring field parameters in detail. [8]
- b) Compare graphical programming with conventional programming. [8]
- c) Explain the role of virtual instrumentation in the field of Agriculture. [4]

OR

- Q2)** a) Explain in detail direct reading type conductivity meter to measure salt levels in plant roots with necessary diagram. [8]
- b) Compare graphical programming with conventional programming. [8]
- c) Explain the principle of Gas Analyzer based on gas density & ionization of gases. [4]

- Q3)** a) What are the various assisting services of FMIS to support the farmer's decision making? [6]
- b) Explain any two examples of advanced precision agriculture components. [6]
- c) Discuss what the farmers are considering about precision farming & what they want. [6]

OR

P.T.O.

- Q4)** a) Suggest precise & economical soil moisture measuring techniques and explain in detail. [6]
b) What approach is required to be adopted by the policy makers to promote precision farming at farm level. [6]
c) Write a note on Variable Rate Technology. [6]

- Q5)** a) Explain the requirements for the new greenhouse pesticide spraying system. [6]
b) Explain uses of remote sensing in agricultural and water management sector. [6]
c) Explain in brief : Dead Reckoning. [4]

OR

- Q6)** a) Explain the strategy of humidity control in Greenhouse & also state effects of humidity of plant's growth. [6]
b) What do you mean by site - specific spraying? [6]
c) Describe the role of Agricultural GIS system. [4]

- Q7)** a) Explain any two categories of services for better management & implementation of services to the needy farmers. [6]
b) What are the various drying processes for crop preservation? Explain any two in detail. [6]
c) Write a note on agricultural weather monitoring system. [4]

OR

- Q8)** a) Explain modeling & identification of manipulating variables for Greenhouses. [6]
b) Define Governance & state the major challenges in agricultural Governance. [6]
c) Enlist the types of Greenhouses based on shape, utility, construction & covering material. [4]

