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 Qi or Q2, Q3 or Q4, Q5 or Q6 and Q7 or Q8.***

2) ***Neat diagrams must be drawn wherever necessary.***

3) ***Assume suitable data jfnecessarv.***

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]**

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