

Total No. of Questions : 6]

SEAT No. :

P140

[Total No. of Pages : 1

OCT./BE/Insem-65
B.E. (Electronics Engineering)
Electronics in Agriculture
(2012 Pattern)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Assume suitable data if necessary.*

Q1) a) With suitable block diagram explain role of virtual instrumentation in the field of agriculture. [6]

b) State the advantages of using data acquisition system for sensing field parameters. [4]

OR

Q2) a) With suitable example explain computer controlled agricultural automation. [6]

b) Write a short note on Greenhouse weather monitoring system using SCADA. [4]

Q3) a) Compare various types of field buses used for agriculture field parameter communication. [6]

b) State the advantages & disadvantages of sensor networks. [4]

OR

Q4) a) Draw & explain architecture of Profibus & explain use of Profibus in agriculture sensor network. [6]

b) What are the general considerations in network design? [4]

Q5) a) Suggest use of electrical conductivity measurement in agriculture and explain in brief. [5]

b) Compare various types of Gas analyzers. [5]

OR

Q6) a) With necessary diagram explain signal conditioning circuit for the following. [5]

i) Humidity measurement

ii) PH measurement.

b) Enlist & explain types of Instrument technology used to measure agriculture field parameters. [5]

