

Total No. of Questions : 8]

SEAT No. :

P3199

[5461]-239

[Total No. of Pages : 2

B.E. (Electrical Engineering)

SMART GRID

(2012 Pattern) (Elective-IV(a)) (Semester-II) (End Sem.)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Solve Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
- 2) *Figures to the right side indicate full marks.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Assume suitable additional data, if necessary.*

- Q1)** a) Define smart grid and its need. [6]
- b) Explain the concept vehicle to Grid. [6]
- c) Highlight on role of geographic information system in smart grid, and also give its function. [8]

OR

- Q2)** a) Give present development and international policies in smart grid. [6]
- b) Write a note on, “Smart substation”. [6]
- c) Explain how Smart Appliances can be the part of Smart Grid. [8]

OR

- Q3)** a) Explain microgrid architecture. [8]
- b) Discuss different Applications of micro grid. [8]
- Q4)** a) Explain about protection and control of microgrid. [8]
- b) Describe the concept and formation of Micro Grid. [8]

P.T.O.

Q5) a) Explain EMC and its importance in smart grid. [8]

b) Describe the concept, power quality conditioners related to smart grid. [8]

OR

Q6) a) Describe Web Based Power Quality Monitoring. [8]

b) Explain the power quality audit and its importance in smart grid. [8]

Q7) a) Explain the concept related to smart grid. [9]

b) Write a note on Cyber Controlled Smart Grid. [9]

OR

Q8) a) Explain the importance of Wi-Max based communication. [9]

b) Write a note on cloud computing. [9]

