

Total No. of Questions : 8]

SEAT No. :

P3150

[Total No. of Pages : 2

[5354]-638

B.E. (Electrical Engineering) (Semester - II)

SMART GRID

(2012 Pattern) (Elective -IV)

Time : 2:30 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 indicate full marks.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Assume suitable additional data, if necessary.*

- Q1)** a) Explain the concept of Resilient and Self healing Grid. [6]
b) Name different smart storage technologies and explain any two in detail. [8]
c) State and explain briefly the components of Geographic Information System (GIS). [6]

OR

- Q2)** a) State and explain the challenges for smart Grid. [6]
b) Write a note on, "Real time pricing". [6]
c) Explain the concept Plug in Hybrid Electric Vehicles. [8]

- Q3)** a) Discuss different issues of micro grid when interconnected. [8]
b) Describe the concept and formation of Micro Grid. [8]

OR

- Q4)** a) Explain about protection and control of microgrid. [8]
b) Describe Power Quality Issues of grid connected Renewable Energy Sources. [8]

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- Q5)** a) Explain the power quality audit and its importance in smart grid. [8]
b) Write a note on, Power quality management in smart grid. [8]

OR

- Q6)** a) Describe the concept, power quality conditioners related to smart grid.[8]
b) Explain importance of power quality in smart grid & how it can be improved. [8]

- Q7)** a) Explain the, concept WAN related to smart grid. [9]
b) Explain the importance of Bluetooth in smart grid. [9]

OR

- Q8)** a) Write a note on Wi-Max based communication in smart grid. [9]
b) Write a note on, “IP based protocols”. [9]

