

Total No. of Questions : 6]

SEAT No. :

P1411

[Total No. of Pages : 2

BE/Insem./APR-198

B.E. (Electrical Engineering)

SMART GRID

(2015 Pattern) (Semester - II) (Elective - IV) (403150A)

Time : 1 Hour]

[Max. Marks :30

Instructions to the candidates:

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

Q1) a) What is the need of Smart Grid? What will be the components of Smart Grid? [5]

b) What are the different opportunities and Barriers of Smart Grid in India.[5]

OR

Q2) a) Define Smart Grid and give its functions. [5]

b) Give present development and international policies in smart grid. [5]

Q3) a) Write a note on Remote Terminal Unit with block diagram and write a function of each block. [6]

b) Write a short note on Superconducting Magnetic Energy Storage. [4]

OR

Q4) a) Compare SMES, Super capacitors, Pumped Hydro and CAES. [6]

b) Explain, the “Feeder Automation”. [4]

P.T.O.

Q5) a) What is meant by Smart Sensors? Give and explain some smart sensors. [5]

b) How home and building automation can be achieved using Smart Appliances? Explain step by step. [5]

OR

Q6) a) What are smart energy meters? Explain its function in smart grid. [6]

b) Write a note on, “Real Time Pricing”. [4]

