

Total No. of Questions : 6]

SEAT No. :

P86

[Total No. of Pages : 2

APR - 18/BE/Insem. - 44

B.E. (Electrical Engineering)

SMART GRID

(2012 Pattern) (Elective - IV) (Semester - II)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.*
- 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) Difference between conventional grid and smart grid. **[5]**

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

OR

Q2) a) Give and explain the opportunities and barriers of smart grids. **[5]**

b) Explain the concept of resilient and self healing grid. **[5]**

Q3) Write short notes on: **[10]**

a) IEDs

b) SMES

OR

Q4) a) Explain phase measurement unit and its importance in smart grid. **[5]**

b) Explain in detail Plug in Hybrid Electric Vehicles (PHEV) **[5]**

P.T.O.

- Q5)** a) What is meant by outage management? What is present status of OMS? How it will be improved in smart grid. [4]
- b) How Automated Meter Reading system Works? Draw block diagram and give the advantages. [6]

OR

- Q6)** a) Why real time pricing should be implemented and give its development stages. [5]
- b) Highlight on geographical information system in smart grid and also give its functions. [5]

