

Total No. of Questions : 8]

SEAT No. :

**P3082**

**[5154]- 648**

[Total No. of Pages : 2

**B.E. (Electrical Engineering)**

**SMART GRID**

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

*Time :2½ Hours]*

*[Max. Marks :70*

*Instructions to the candidates:*

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

- Q1)** a) Give present development and international policies in smart grid. [8]  
b) Explain the concept Plug in Hybrid Electric Vehicles. [6]  
c) Explain phase measurement unit and its importance in smart grid. [6]

OR

- Q2)** a) Explain the Resilient and self healing grid. [8]  
b) Explain how automatic meter reading can make the system smarter. [6]  
c) write a note on, "IED". [6]

- Q3)** a) Explain concept of microgrid, and its need and application. [8]  
b) Explain about protection and control of microgrid. [8]

OR

- Q4)** a) Explain about formation of microgrid and also its need. [8]  
b) Explain architecture of microgrid. [8]

- Q5)** a) Explain EMC and its importance in smart grid. [8]  
b) Explain Web based power quality monitoring. [8]

OR

*P.T.O.*

- Q6)** a) High light the issues related to power quality in smart grid. [8]  
b) Explain the power quality audit and its importance in smart grid. [8]

- Q7)** a) Explain cloud computing and its need. [9]  
b) Explain the, concept WAN related to smart grid. [9]

OR

- Q8)** a) Write a note on Wi- Max based communication in smart grid. [9]  
b) Explain the importance of Bluetooth in smart grid. [9]

