

Total No. of Questions : 8]

SEAT No. :

PB-4465

[Total No. of Pages : 2

[6263]-118R

B.E. (Electrical)

SMART GRID

(2019 Pattern) (Semester - VIII) (403150C) (Elective - V)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Solve question Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Assume the suitable data, if necessary.

Q1) a) What is outage management system? Explain how it will work in smart grid? [9]

b) Write a note on "Smart Substation". [9]

OR

Q2) a) State and explain briefly the components of Geographic Information System (GIS). [9]

b) Write a short note on "Real Time Pricing". [9]

Q3) a) Why cyber security is having prime importance in Smart Grid? Discuss how it can be achieved. [9]

b) Explain cloud computing and its need. [8]

OR

Q4) a) Write a short note on Wi-Max based communication. [9]

b) Explain the concept of Home Area Network (HAN) in smart grid. [8]

Q5) a) Discuss different issues of microgrid when interconnected with renewable sources. [9]

b) Explain structure of DC Microgrid. [9]

OR

P.T.O.

- Q6)** a) Explain the need of Microgrid concept and application. [9]  
b) Explain protection and control of Microgrid. [9]

- Q7)** a) Describe Power Quality issues of grid connected renewable energy. [9]  
b) Explain Electromagnetic compatibility (EMC) and its important in smart grid. [8]

OR

- Q8)** a) Explain Distributed Generation and its need in Smart Grid. [9]  
b) Explain how smart applications can help in home and building automation. [8]

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