PA-10184

[6010]-54

B.E. (Electrical Engg.) (Insem)
SMART GRID
(2019 Pattern) (403150C) (Semester - VIII) (Elective - V)

Time : 1 Hour]   *[Max. Marks : 30*

Instructions to the candidates:

1) Each question carry 15 marks.

2) Solve Q1 or Q2 and Q3 or Q4.

3) Figures to the right side indicate full marks.

4) Assume the suitable data, if necessary.

Q1) a) What is the need of smart grid? What will be the components of smart grid? **[7]**

b) Write a note on present development in smart grid considering any one case study. **[8]**

OR

Q2) a) Write a note on opportunity and barriers in smart grid. **[7]**

b) Explain the concept of Resilient and Self-Healing grid. **[8]**

Q3) a) Write a note on phase measurement unit (PMU) with block diagram and give the functions of each block. **[7]**

b) Write a short note on : **[8]**

i) Plug in Hybrid Electric Vehicles (PHEV)

ii) Vehicle to grid (V2G)

OR

Q4) a) Explain the function of IED and their Application. **[7]**

b) Compare : **[8]**

i) SMES and Super Capacitors.

ii) Pumped Hydro Energy Storage (PHES) and Compressed Air Energy Storage (CAES).

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