

Total No. of Questions : 8]

SEAT No. :

P971

[Total No. of Pages : 2

[5871]-650

B.E. (Electronics Engg.)

RENEWABLE ENERGY SYSTEMS & DSM, (Elective - IV)

(2015 Pattern) (Semester - II) (404212C)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer 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 side indicates full marks.*
- 3) *Draw neat diagram wherever necessary.*
- 4) *Assume suitable data, if necessary.*

Q1) a) Briefly write about different forms of energy. **[8]**

b) Explain spectral distribution of extra-terrestrial radiation and terrestrial Solar Radiation with schematics. **[6]**

c) Write a note on Biomass Resources and their Energy Potential. **[6]**

OR

Q2) a) Explain different types of photovoltaic cells. **[8]**

b) Explain installation of wind power plant with neat diagram. **[6]**

c) Define the biomass gasification. What are the different factor affecting Biogas Production. **[6]**

Q3) a) Explain in detail about the different techniques of DSM with necessary examples. **[10]**

b) Define DSM and explain the benefits of DSM. **[6]**

OR

Q4) a) Explain briefly about energy efficient equipments. **[6]**

b) Explain concept and features of DSM. **[6]**

c) What is load management? Explain its importance. **[4]**

P.T.O.

Q5) a) Classification of various Demand Response options in energy systems. [8]

b) Explain the energy management system. [4]

c) Explain the roll of communication infrastructure in energy system. [4]

OR

Q6) a) Explain the Demand Response strategies for various load categories. [8]

b) Explain Demand Response as an apart of smart grid initiative. [8]

Q7) a) Discuss understanding variation in demand and supply of electricity. [8]

b) Explain in details load forecasting. [6]

c) Discuss the need of energy audits. [4]

OR

Q8) a) Explain different types of audit and procedures to follow during energy audit. [8]

b) Discuss outcome of energy audit and energy saving potential. [6]

c) Explain the energy consumption in detail. [4]

