

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Winter 2018 – 19 Examination

Semester: 1
Subject Code: 203207130
Subject Name: Renewable Energy System

Date: 12/12/2018
Time: 10:30am to 1:00pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 A) Explain about the DG (Distributed Generation) and CG (Centralized Generation). (05)

B) Describe the working of micro-turbine. (05)

C) Discuss the impact of type of DG interface on power system. (05)

Q.2 Answer the following questions. (Attempt any three) (Each five mark) (15)

A) Explain the impact of Distributed Generation on Power Quality.

B) Explain in brief about protection coordination in distribution system with example.

C) Discuss the local control of Distributed Generation.

D) Explain different islanding detection technique.

Q.3 A) Discuss different types of full power electronics interfaced wind turbine with induction generator. (07)

B) What is very short variation in the voltage and explain the spread of voltage fluctuation? (08)

OR

B) Explain the effect of Irradiance and Temperature on solar Panel. (08)

Q.4 A) Explain the fast voltage fluctuation due to wind Power and Solar Power injection. (07)

OR

A) What are the different techniques of MPPT Tracking? Explain in detail. (07)

B) Describe the solar panel with its Equivalent Circuit Diagram. (08)