

Sub Code: MEET-111

ROLL NO.

## Model Question Paper

COURSE: M.TECH.

BRANCH: ELECTRICAL ENGINEERING

SEMESTER: 1

SUBJECT: Renewable Energy System

Duration: 3:00 hrs

Max marks: 100

**Note: Attempt all questions.**

**1. Attempt any four parts of the following.**

**5x4 = 20**

- a) Give introduction to clean energy technologies and its importance in sustainable development.
- b) What are environmental code of ethics and their limitations?
- c) What is the role of government initiatives by Non-governmental organizations environmental
- d) Explain the Internal Combustion Engines.
- e) What are the Sources of Energy such as Micro-turbines?

**2. Attempt any two parts of the following.**

**10x2=20**

- a) Explain solar energy how it is beneficial for environment.
- b) Write the application of PV system and compare it with conventional method.
- c) Give the working of solar thermal conversion devices.

**3. Attempt any two parts of the following.**

**10x2=20**

- a) Write the basic principle of wind energy conservation.
- b) How will you collect wind data and what is the process of energy estimation?
- c) Explain Power Electronic Interface with the Grid.

**4. Attempt any two parts of the following.**

**10x2=20**

- a) Explain the Impact of Distributed Generation on the Power System.
- b) Discuss various factors to be considered while selecting the site for nuclear power plant.
- c) What are the main characteristics of a good power plant site ?

**5. Attempt any two parts of the following.**

**10x2=20**

- a) What are the cause and effects of air pollution, water pollution, soil pollution, marine pollution, noise pollution, thermal pollution? And how to control these pollutions?
- b) What are various methods of using solar energy? What is the future of bio fuels in India?
- c) Explain the Transmission System Operation.

