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LDRP Institute of Technology & Research, Gandhinagar.

ME (Sem-II) (Electrical)

Examination – 2013

RTINCES

Instructions: **Max. Marks- 70**

1. Figure to right indicate full marks.
2. Assume suitable data wherever it is necessary.
3. Attempt all questions.

14-6-13

SECTION I

Q.1 (a)	Explain site selection procedure for the wind plant.	**[05]**
(b)	Explain methods of Direct Energy Conversion? Describe in Brief.	**[05]**
(c)	Describe merit and demerit of nonconventional energy sources	**[05]**
	OR	
(c)	Explain Sun and Earth Relationship.	**[05]**
Q.2 (a)	Define Declination angle and Altitude angle	**[05]**
(b)	What are the types of wind Machine?	**[05]**
	OR	
Q.2 (a)	Explain different Conventional and Nonconventional Energy Sources?	**[05]**
(b)	Define Zenith angle and Solar Azimuth angle	**[05]**
Q-3 (a)	What is the solar photovoltaic cell? Gives Merit and Demerits	**[05]**
(b)	Design and Explain the structure of PV Module.	**[05]**
	OR	
Q-3 (a)	Explain Wind flow Analysis and Measurement of wind speed	**[05]**
(b)	Explain the Economic Analysis of PV System.	**[05]**

SECTION II

Q.4 (a)	What Fuel cell, Explain Principle and Operation of a Fuel Cell.	**[05]**
(b)	Give different classification of Fuel Cell and Explain any one of them.	**[05]**
(c)	Explain Advantage and disadvantage of fuel cell.	**[05]**
	OR	
(c)	Compare Fuel cell with other non conventional source.	**[05]**
Q.5 (a)	Explain Thermodynamics of Fuel Cell.	**[05]**
(b)	Advantage and Disadvantage of Fuel cell.	**[05]**
	OR	
Q.5 (a)	Explain component of Fuel Cell	**[05]**
(b)	What is distributed generation and it's benefits	**[05]**
Q-6 (a)	Explain Theory of operation of combustion turbine	**[05]**
(b)	Explain Solar Radiation Geometry?	**[05]**
	OR	
Q-6(a)	Application and Benefit of combine Heat and power	**[05]**
(b)	Explain Economy and Financial aspects of distributed generator.	**[05]**
