Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## M. E. - SEMESTER – I • EXAMINATION – WINTER 2012

Date: 08-01-2013

Subject code: 713901N

Subject Name: Energy Resources, Economics and Environment Time: 02.30 pm – 05.00 pm Total Marks: 70 Instructions:		
	<ol> <li>Attempt all questions.</li> <li>Make suitable assumptions wherever necessary.</li> <li>Figures to the right indicate full marks.</li> </ol>	
Q-1	(a) Write a short note on Recent development of Nuclear Power generation in India.	07
	(b) Write a short note on Clean development mechanism.	07
Q-2	(a) Explain Green house effect & also mention the sources of green house gases.	07
	(b) Explain different methods of cost Evolution (Financial Analysis).	07
	OR	
	(b) Determine the payback period and net present value (NPV) for an investment towards a compact florescent lamps (CFL) . the data for this project are given below. Investment = 300/-,	07
	Saving at the end of first year =900/- Saving at the end of second year = 900/- Service life = 2years Discount rate = 12%	
Q-3	<ul><li>(a) Explain different factors to be consider for site selection of wind generation.</li><li>(b) Give comparison between Horizontal and vertical Axis wind turbine.</li></ul>	07 07
	OR	
	(a) Give classification of Hydropower plant and Explain hydro electric power generation.	07
	(b) Write a short note on Ocean thermal energy conversion (OTEC).	07
Q-4	(a) Write a short note on Electricity act 2003 and its features.	07
	(b) Write a short note on disposal of radio active waste for Nuclear power plant OR	07
	(a) Write a short note on Kyoto protocol.	07
0.5	(b) Define the term energy security give your suggestions to achieve energy security.	07
Q-5	<ul><li>(a) Give the relationship between EIA and EIS.</li><li>(b) What makes EIA time consuming, expensive, and subjective Exercise?</li></ul>	07 07
	(a) Give difference between EIA NOTIFICATION of 2006 and 1994.	07
	(b) Define the environment attribute. Which type of information is required for describing attributes?	07

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