Seat No.: _____ Enrolment No._____

# GUJARAT TECHNOLOGICAL UNIVERSITY

**ME - SEMESTER–I(New course)• EXAMINATION – WINTER- 2015**

**Subject Code: 2713901** **Date:04/01/2016**

**Subject Name: Energy resources, Economics and Management**

**Time:2:30 pm to 5:00 pm** **Total Marks: 70**

**Instructions:**

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

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|---|---|---|---|
| **Q.1** | **(a)** | Write a short note on Kyoto protocol and its Kyoto mechanisms. | **07** |
| | **(b)** | Explain in detail Greenhouse Gases and its effect. | **07** |
| **Q.2** | **(a)** | Explain payback period method and return on Investment method for financial Analysis. | **07** |
| | **(b)** | Explain in detail the points to be considered for site selection of thermal power plant. | **07** |
| | | **OR** | |
| | **(b)** | Write a short note on recent developments of Hydro Electricity power generation in India. Also mention the advantages and limitation of Hydro Electricity power generation. | **07** |
| **Q.3** | **(a)** | Define sustainable development and how to achieve sustainable development in EIA. | **07** |
| | **(b)** | Write a brief note on need of EIA for developing countries . | **07** |
| | | **OR** | |
| **Q.3** | **(a)** | Explain cut-in and cut-out speed for wind turbine. Compare horizontal and vertical axis wind turbine. | **07** |
| | **(b)** | Write a short note on benefits and barriers of wind energy. | **07** |
| **Q.4** | **(a)** | Write a short note on tidal energy for power generation. | **07** |
| | **(b)** | Write a short note on solar photovoltaic technology. | **07** |
| | | **OR** | |
| **Q.4** | **(a)** | Write a short note on Scope of development of renewable energy sources in India. | **07** |
| | **(b)** | Explain the salient features of energy conservation act 2001 in detail. | **07** |
| **Q.5** | **(a)** | Explain carbon credits and emission trading with its advantages and limitations. | **07** |
| | **(b)** | Write a short note on Electricity act 2003 and its features. | **07** |
| | | **OR** | |
| **Q.5** | **(a)** | Define the environment attribute. Which type of information is required for describing Attributes? | **07** |
| | **(b)** | Write a short note on Energy conservation an Energy security. | **07** |

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