

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B E Sem-VI Examination May 2011**

**Subject code: 162905**

**Subject Name: Energy Conservation & Pollution Control In Textile Industry**

**Date: 23/05/2011**

**Time: 10.30 am – 01.00 pm**  
**Total Marks: 70**

**Instructions:**

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

**Q.1** Discuss energy conservation measures in sizing department with reference to novel techniques of sizing and developments in sizing ingredients **14**

**Q.2 (a)** What is ISO 14001? Describe its major elements and benefits achieved by the company through its proper execution. **07**

**(b)** “Energy efficient lighting measures and proper humidification can lead to energy conservation in a textile mill.” Discuss. **07**

**OR**

**(b)** Explain measures to economize energy in the wet processing section of a mill. **07**

**Q.3 (a)** What causes dust pollution in a mill? What is bysynossis? State the reasons of its occurrence and suggest its symptoms along with the remedial measures. **07**

**(b)** Explain noise pollution in a textile mill with steps to control higher noise pollution in weaving section of a mill with reference to modern plants. **07**

**OR**

**Q.3 (a)** Explain Effluent Treatment Plant of a textile mill. **07**

**(b)** Explain waste heat recovery systems. **07**

**Q.4** Discuss water pollution with causes, modification in plant design and operational practices to minimise water pollution. **14**

**OR**

**Q.4** What is air pollution? Discuss the causes of air pollution and explain modifications in plant design and operational practices to minimise air pollution. **14**

**Q.5** Discuss the scope of energy conservation in ring frame with broad outline of major components consuming power on a ring frame. **14**

**OR**

**Q.5 (a)** Explain energy management and energy audit. **07**

**(b)** Discuss energy resources of India. **07**

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