

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII • EXAMINATION – WINTER • 2014****Subject Code: 173605****Date: 29-11-2014****Subject Name: Environmental Aspects of Dyes and Pigment Industry****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 (a)** Define the term: **07**
- i) Pollution
 - ii) Pollutant
 - iii) Environmental Chemistry
 - iv) Micro-Environment
 - v) Macro-Environment
 - vi) Unit Process
 - vii) Unit Operation
- (b)** Write a short note on Noise Pollution. **07**
- Q.2 (a)** Write a short note on Management of Environment. **07**
- (b)** Write down chemical and photochemical reaction of Nitrogen, Nitrous Oxide and Ozone in atmosphere. **07**
- OR**
- (b)** Briefly explain harmful effect of soil pollutant generated from Dyes and Pigments Industries. **07**
- Q.3 (a)** Write a short note on Acid Rain. **07**
- (b)** Explain Methods for Monitoring Oxides of Nitrogen in Dyes and Pigments Industries. **07**
- OR**
- Q.3 (a)** Write a short note on Photochemical Smog. **07**
- (b)** Write a short note on Global warming. **07**
- Q.4 (a)** Write a short note on BOD. **07**
- (b)** Write a short note on Hardness of Water. **07**
- OR**
- Q.4 (a)** Write a short note on COD. **07**
- (b)** Write a short note on Management of Hazardous waste. **07**
- Q.5 (a)** Write a short note on Distillation and Gravitational Separation. **07**
- (b)** Write a short note on Purification Methods. **07**
- OR**
- Q.5 (a)** Write a short note on Extraction and Membrane Filtration. **07**
- (b)** Write a short note on:
- i) Plug Flow Reactors (PFRs) & Packed Bed Reactors (PBRs)
 - ii) Continuous Stirred-Tank Reactors (CSTRs) & Fluidized Bed Reactors (FBRs)
