

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014****Subject Code: 162205****Date: 26-05-2014****Subject Name: Mine Surface Environment****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) What is the land use pattern? Give the assessment of impacts of land use **07**
 (b) Explain the effects of mining on flora and fauna briefly. **07**
- Q.2** (a) Explain Environmental issues in mineral industry. **07**
 (b) What is Acid Mine Drainage? Describe the formation of Acid Mine Drainage with reference to the sulphur content of the coal seam. **07**
- OR**
- (b) What is water drainage pattern? Discuss the drainage pattern is affected due to Mining. **07**
- Q.3** (a) Discuss the community stability and species diversity with the reference of ecological environment. **07**
 (b) Explain the impacts of mining activities on surface and sub surface water Bodies. **07**
- OR**
- Q.3** (a) Give the impacts of open cast mining activities in ecological environment. **07**
 (b) What is airborne repairable dust? How it is generated? Give its harmful physiological effects. **07**
- Q.4** (a) Write a note on underground mining hazards in India. **07**
 (b) Write a short note on environmental management in mining operation. **07**
- OR**
- Q.4** (a) Describe the major safety hazards in mining. **07**
 (b) Which are the responsible factors for degradation of soil? Explain the reclamation of derelict and degraded lands. **07**
- Q.5** (a) What is blasting? Explain the environmental aspects of ground vibrations and air-blast. **07**
 (b) How noise pollution is created by mining? How it affects human beings? **07**
- OR**
- Q.5** (a) Explain formation of fly rock due to blasting. Explain their various effects to environment. **07**
 (b) Write a note on Stabilizing the debris dumps in this mining operation. **07**
