

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VII(NEW) • EXAMINATION – WINTER 2016

Subject Code:2172204**Date:25/11/2016****Subject Name:Mineral Processing****Time:10.30 AM to 1.00 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) Explain stationary screen & vibrating screen. **07**
 (b) What is mineral processing? Draw a simplified flow sheet for ore processing. **07**
- Q.2** (a) Explain various method of Thickening. **07**
 (b) Explain the drying and dewatering process for coal. **07**
- OR**
- (b) What mineral properties help in their separation? What are the techniques used separation? **07**
- Q.3** (a) Define the following term: (1) Ore (2) Mineral (3) Crushing (4) Grinding (5) Coal (6) Jigging (7) Sizing. **07**
 (b) Draw simplified flow sheet for cleaning & preparation of Bituminous coal. **07**
- OR**
- Q.3** (a) Explain the Ball mill. Classify the various zones created in Ball mill during grinding. **07**
 (b) Explain Shaking table. **07**
- Q.4** (a) Explain Lessing process. **07**
 (b) Write important elements of design of Magnetic separator. **07**
- OR**
- Q.4** (a) Write merits of mineral processing. **07**
 (b) Write a short note on grinding. **07**
- Q.5** (a) Explain the classification of crusher. Describe any one crusher. **07**
 (b) Explain the classification of industrial screens. **07**
- OR**
- Q.5** (a) Write a short note on electrostatic separator. **07**
 (b) Draw flow sheet for concentrating plant for a magnetite ore. **07**
