

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VII • EXAMINATION – WINTER 2013

Subject Code: 172204**Date: 28-11-2013****Subject Name: Mineral Processing****Time: 10:30 TO 01:00****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 mineral properties help in their separation? What are the techniques used separation? **07**
- (b) Explain the mineral processing by flow sheet of ore processing. **07**
- Q.2** (a) What are crushers? Give the characteristics of a typical crusher with diagram. **07**
- (b) What is sizing? What are the different methods of sizing used in laboratory? **07**
- OR**
- (b) Write about different types of classifiers? Explain any one mechanical classifier. **07**
- Q.3** (a) What are the types of Gravity Concentration methods? Also write about the limitations of each method. **07**
- (b) Explain the forth-flotation method used in mineral processing. **07**
- OR**
- Q.3** (a) Explain the process and use of magnetic separation. **07**
- (b) Explain electrostatic separation. **07**
- Q.4** (a) Explain the drying and dewatering process for coal. **07**
- (b) Draw simplifies flow sheets for PbS ore. **07**
- OR**
- Q.4** (a) What methods are engaged in ore dressing? Explain any one in detail. **07**
- (b) What is screening? How is screening efficiency checked? Give types of screens. **07**
- Q.5** **Write note on any 2 :-** **07**
1. Hydroclone.
 2. Jigging.
 3. Comminution.
 4. Thickening.
 5. Dense media seperation.
