

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VII (NEW) EXAMINATION – WINTER 2020****Subject Code:2172204****Date:30/01/2021****Subject Name:Mineral Processing****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any **FOUR** questions out of **EIGHT** questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

	MARKS
Q.1 (a) Write a note on industrial screens.	03
(b) Write down the principal steps of mineral processing.	04
(c) Explain different methods of sampling.	07
Q.2 (a) What is the purpose of collectors?	03
(b) Explain: mobile crushing unit.	04
(c) Briefly explain gravity concentration.	07
Q.3 (a) Define: (i) Collectors (ii) jigging.	03
(b) Write down on Advantage and disadvantage of jigs.	04
(c) Write short note on heavy media separation.	07
Q.4 (a) Explain vibrating tables in brief.	03
(b) Write the objectives of grinding.	04
(c) Explain: Methods used in ore dressing.	07
Q.5 (a) Write a note on laboratory sieve analysis.	03
(b) Define the following term: (1) Ore (2) Mineral.	04
(c) Explain the electrostatic separator.	07
Q.6 (a) Explain: crushing, sizing and cleaning of coal.	03
(b) Which mineral properties are being helpful during separation?	04
(c) What is mineral processing? How is it useful to mining industry?	07
Q.7 (a) Write note on Flowing.	03
(b) Explain the differentiate between Crushing and Grinding.	04
(c) Draw a flow sheet for bituminous coal.	07
Q.8 (a) Write a note on Thickening.	03
(b) Write merits and demerits of mineral processing.	04
(c) Explain Communion and Liberation in detail.	07
