

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2182207****Date:20/05/2019****Subject Name:Geological Exploration Mineral Deposits****Time:10:30 AM TO 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.

		MARKS
Q.1	(a) Define Exploration. Describe objectives and principles of exploration.	03
	(b) Define aerial photography. Explain its application.	04
	(c) Differentiate between surface and sub-surface exploration.	07
Q.2	(a) Explain the classification of mineral reserves.	03
	(b) Write a note on remote sensing techniques used in exploration.	04
	(c) Define Boring. Write different principles and uses of boring.	07
	OR	
	(c) Differentiate between rotary and percussive boring.	07
Q.3	(a) Discuss the general principles of geophysical exploration.	03
	(b) Explain bore hole survey and bore hole deflection.	04
	(c) Explain surface and underground mapping.	07
	OR	
Q.3	(a) Discuss the general principles of geochemical exploration.	03
	(b) Explain interpretation of geological and geophysical data.	04
	(c) List out various techniques of Reconnaissance. Explain any one in brief.	07
Q.4	(a) Discuss the site selection for boreholes.	03
	(b) Explain various operational stages of aerial photography.	04
	(c) Explain electrical method of geophysical exploration.	07
	OR	
Q.4	(a) Discuss the difficulties occurs during in boring.	03
	(b) Describe the airborne survey.	04
	(c) Explain magnetic method of geophysical exploration.	07
Q.5	(a) Discuss the principles of geological exploratory mapping.	03
	(b) Describe the precautions are to be taken in carrying geo-chemical exploration.	04
	(c) Explain gravity method of geophysical exploration in brief.	07
	OR	
Q.5	(a) Explain scale of photographs.	03
	(b) Explain aerial camera and its parts.	04
	(c) Explain hydro-geochemistry exploration.	07
