

www.FirstRanker.com www.FirstRanker.com
GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- III (New) EXAMINATION – WINTER 2019

Subject Code: 3132203

Date: 3/12/2019

Subject Name: Geology

Time: 02:30 PM TO 05:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		Marks
	Define:	
Q.1	(a) i. Geology ii. Mineralogy	03
	(b) Write a note on internal structure of the earth.	04
	(c) Explain different branches of geology and their application.	07
Q.2	(a) Differentiate between weathering and denudation.	03
	Define:	
	i. Erosion	
	ii. Weathering	04
	iii. Attrition	
	iv. Frost action	
	(c) Write a note on scope of geology in mining.	07
OR		
	(c) Write the role of plate tectonics and continental drift on structural features of the earth.	07
Q.3	(a) Arrange the following minerals on the scale of increasing hardness as per the Moh's hardness scale: Feldspar; Calcite; Talc; Diamond; Topaz; Gypsum; Apatite; Corundum; Fluorite; Quartz	03
	(b) Write a note on geological mapping.	04
	(c) Write a note on geological work of rivers.	07
OR		
	Define:	
Q.3	(a) i. Bedding plane ii. Dip iii. Strike	03
	(b) Write a note on geological time scale of earth.	04
	(c) Write a note on geological work of wind.	07
	Define:	
Q.4	(a) i. Folds ii. Faults iii. Unconformity	03
	(b) Classify types of folds.	04
	(c) Write a note on quartz family of minerals.	07
OR		
Q.4	(a) Write a note on unconformity.	03
	(b) Classify types of faults.	04

- (c) Write a note of pyroxene family of minerals. **07**
www.FirstRanker.com www.FirstRanker.com
- Match the following:
- | | | | |
|----------------|-------------|---|-----------|
| Q.5 (a) | i. Shaft | a. Horizontal entry to the ore body | 03 |
| | ii. Adit | b. Used for sampling | |
| | iii. Trench | c. Vertical or inclined opening to the ore body | |
- (b) Explain different types of drilling methods with its applicability in various geological conditions. **04**
- (c) Explain the physical properties of minerals. **07**
- OR**
- Give the fullform and uses for the following abbreviations:
- | | | |
|----------------|---------|-----------|
| Q.5 (a) | i. GPS | 03 |
| | ii. GIS | |
- (b) List the limitations of percussive drilling. **04**
- (c) Explain the procedure of image interpretation of aerial photographs. **07**

www.FirstRanker.com