

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI • EXAMINATION – WINTER • 2014****Subject Code: 162201****Date: 26-11-2014****Subject Name: Economic Geology - I****Time: 02:30 pm - 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.

- Q.1** (a) What is the importance of minerals in national economy? **07**  
 (b) Explain the origin and nature of hydrothermal solutions. **07**

- Q.2** (a) Describe the relation between volcanogenic process and economic mineral deposits. **07**  
 (b) Explain the geophases of pegmatite deposits for different mineral formation, also explain types of pegmatites. **07**

**OR**

- (b) What is the importance of stock works in cavity filling deposits? **07**

- Q.3** (a) Explain metasomatic replacement deposit. Also explain different stage and growth of replacement. **07**  
 (b) Write a note on fissure vein and saddle reefs. **07**

**OR**

- Q.3** (a) Explain the mode of occurrence and genesis of gold and copper deposits in India. **07**  
 (b) What are the different economic deposits associated with acidic and basic rocks? **07**

- Q.4** (a) Differentiate between :- **07**  
 1. Ore and Gauge minerals.  
 2. Metallic and Non-metallic minerals.  
 (b) What is the economic importance of Skarn deposits? Explain the role of intrusive rocks for the formation of skarns. **07**

**OR**

- Q.4** (a) Explain the role of clays in ceramic industry. **07**  
 (b) Which are important gemstones? Explain the origin and mode of occurrence of Diamond in India. **07**

- Q.5** Write a note on any two : - **14**

1. Acid refractory minerals.
2. Chrome deposits.
3. National mineral policy.
4. Xenothermal deposits.
5. Minerals of Fertilizer industry.

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