

**B.Sc. 1<sup>st</sup> Semester (Honours) Examination, 2021**

**GEOLOGY**

**Course Title: Mineral Science**

**Course ID: 12012**

**Course Code: SHGEL-102C-2(T)**

**Time: 1 Hour 15 Minutes**

**Full Marks: 25**

*The figures in the right-hand side margin indicate full marks.  
Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any five of the following questions: 1×5=5
- a. Define tetragonal system.
  - b. What is 2-fold axes of symmetry?
  - c. Define pleochroism.
  - d. Name one mineral which shows lamellar twinning?
  - e. Name one high-pressure polymorph of silica.
  - f. What is birefringence of a mineral?
  - g. Name one mineral which shows cross-hatched twinning?
  - h. Give an example of uniaxial negative mineral.
2. Answer any two of the following questions: 2×5=10
- a. Write a short note on piezoelectricity.
  - b. Compare between colour and lusture of minerals.
  - c. What is roto-inversion? What do you mean by 3-fold roto-inversion?
  - d. Describe the conventional Mohs scale of hardness for minerals.
3. Answer any one of the following questions: 10×1=10
- a. Briefly describe classification of silicates depending on Si-O ratio with examples.
  - b. Briefly describe the principle of construction of Nicol Prism.
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