

USGEOT02 - Geology Paper-II (Minerology and Elementary Mineral Optics)

P. Pages : 1

Time : Three Hours



GUG/W/22/11553

Max. Marks : 50

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat sketches wherever necessary.

1. Give a brief account of physical properties of mineral with reference to colour, hardness, luster and fracture.

OR

Write notes on the following.

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|-----------------|-----------------|
| i) Polymorphism | ii) Isomorphism |
|-----------------|-----------------|
2. Describe in brief the various silicate structures with example.

OR

Describe the followings:

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|---|
| i) Physical properties of albite and microcline |
| ii) Physical properties of quartz group. |
3. Give a brief account of pyroxene group with reference to chemical, physical properties and geological occurrence of their members.

OR

Write notes on the following:

- | | |
|------------------|-------------------------|
| i) Olivine group | ii) Aluminous silicates |
|------------------|-------------------------|
4. Draw a well labelled diagram of petrological microscope and describe its parts with functions.

OR

Describe the following:

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|----------------------|-----------------|
| i) Becke line method | ii) Nicol prism |
|----------------------|-----------------|
5. Write on the following in note more than two sentences attempt **any ten**.
- a) Ionic bond
 - b) Definition of a Mineral
 - c) Streak
 - d) Piezoelectricity
 - e) Name any two feldspathoids
 - f) Cleavage in mica
 - g) Form of Tremolite
 - h) Cleavage of hornblende
 - i) Hardness of Actinolite
 - j) Plane polarized light
 - k) Ordinary light
 - l) Retraction
