

5146

Name :

Reg. No:

**FOURTH SEMESTER B.Sc. DEGREE (SUPPLEMENTARY/IMPROVEMENT)
EXAMINATION, MAY 2016**

(UG - CCSS)

Core Course- Geology

GL4B07- MINERALOGY

(2009-2012 Admissions)

Time : Three Hours

Maximum : 30 Weightage

I. Objective type questions : Answer all questions

Choose the most appropriate answer.

1. Hardness of Apatite.
(a) 3 (b) 6
(c) 5 (d) 8
2. Optical accessory used for order of interference colour
(a) Quartz wedge (b) Mica Plate
(c) Gypsum Plate (d) Bertand lens
3. Which among the following is a uniaxial mineral.
(a) Biotite (b) Muscovite
(c) Calcite (d) Orthoclase
4. Which among the following is a garnet.
(a) Enstatite (b) Aegirine (c) Almandine (d) Andesine

Name the following.

5. Chemical composition of Orthoclase.
6. A transparent variety of calcite.
7. Name a pyroelectric mineral.
8. A mineral with maximum hardness.

Fill in the blanks:

9.is the iron end member of olivine solid solution.
- 10.....is a pyroxene indicative of high pressure.
- 11.If a mineral has same property in all directions is called.....
- 12.....is the angle between two optic axes.

(12X ¼ = 3 weightage)

-Turn Over-

II. Short answer questions. Answer all questions.

13. What is cleavage?
14. What is sign of elongation?
15. Diagnostic optical properties of olivine.
16. Ionic bonding.
17. Exsolution.
18. Optic axial angle.
19. Twinkling in minerals.
20. Industrial use of quartz.
21. Piezoelectric minerals.

III. Short essay questions. Answer any five questions.

(9X1= 9 weightage)

22. Optical indicatrix.
23. Biaxial minerals.
24. Hardness scale.
25. Polymorphism.
26. Aluminium silicates.
27. Optic sign of minerals.
28. Feldspathoids.

IV. Essay questions. Answer any two questions

(5X2= 10 weightage)

29. Describe atomic structure, chemistry and physical properties of amphiboles.
30. Describe atomic structure, physical properties of clay minerals.
31. Give an account of the parts and functions of polarizing microscope.

(2X4= 8 weightage)