

C 62057

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Name.....31.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2014

(CCSS)

Core Course—Geology

GL 4B 07—MINERALOGY

Time : Three Hours

Maximum : 30 Weightage

Section A

Answer all questions.

1. Cryptocrystalline variety of quartz is :
 - (a) Amythyst.
 - (b) Flint.
 - (c) Opal.
 - (d) Coesite.
2. Enstatite is :
 - (a) Sorosilicate.
 - (b) Tectosilicate
 - (c) Inosilicate.
 - (d) Phyllosilicate
3. A mineral with octahedral cleavage :
 - (a) Halite.
 - (b) Feldspar.
 - (c) Fluorite.
 - (d) Sphalerite.
4. Minimum refractive index in biaxial crystal is along :
 - (a) Y-vibration direction.
 - (b) X-vibration direction.
 - (c) Z-vibration direction.
 - (d) In between these.

Answer to the points :

5. Chemical composition of rutile.
6. A mineral showing twinkling.
7. An iron bearing garnet.
8. Si : O ratio in tectosilicate.

Turn over

Fill up the blanks

9. _____ is the breaking of a mineral along a set of parallel identical atomic planes.
10. _____ is the red gem variety of corundum.
11. Basal sections of uniaxial crystals are _____.
12. Hornblende belongs to _____ family.

(12 × ¼ = 3 weightage)

Section B

Answer all questions.

Define the following :

13. Exsolution.
14. Optic axis.
15. Paramagnetism.
16. Streak.
17. Serpentine.
18. Acute bisectrix.
19. Polarized light.
20. Isotropism.
21. Optic axial angle.

(9 × 1 = 9 weightage)

Section C (Short Essay or paragraph questions)

Answer any five questions.

Each question carries 2 weightage.

22. Feldspathoids.
23. Fracture.
24. Pseudomorphism.
25. Optical and physical properties of tourmaline.
26. Optic sign in minerals.
27. Bonding in minerals.
28. Beryl.

(5 × 2 = 10 weightage)

Section D (Essay questions)

Answer any two questions.

Each question carries 4 weightage

29. Describe feldspar group of minerals.
30. Write an essay on optical accessories and their uses.
31. Describe olivine groups of minerals.

(2 × 4 = 8 weightage)