

19P251

(Pages: 1)

Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2020

(CUCSS - PG)

CC19P GEL2 C05 - CRYSTALLOGRAPHY & MINERALOGY

(Applied Geology)

(2019 Admission - Regular)

Time: Three Hours

Maximum: 30 Weightage

I. Short answer type questions. Answer any **four** questions. Each question carries 2 weightage.

1. Zone symbols.
2. Anharmonic ratio.
3. Pleochroism.
4. Isomorphism.
5. Napier's Rule.
6. Amorphous and crystalline.
7. Gypsum plate.

(4 × 2 = 8 Weightage)

II. Short essay questions. Answer any **four** questions. Each question carries 3 weightage.

8. Symmetry operations.
9. Herman Mauguin symbols.
10. Sorosilicate's.
11. Conoscopic studies on minerals.
12. Optical indicatrices.
13. Determination of extinction and optic axial angle.
14. Average mineralogical composition of earth crust

(4 × 3 = 12 Weightage)

III. Long essay. Answer any **two** questions. Each question carries 5 weightage.

15. Crystal projections with emphasis on stereographic projection.
16. Applications of X-ray Crystallography.
17. What are tectosilicates? Describe main characteristics of various minerals of Feldspar group.
18. Discuss optical properties viz. double refraction, Refractive index, Birefringence and interference colours.

(2 × 5 = 10 Weightage)
