

20P149

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Name:

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CUCSS-PG)

(Regular/Supplementary/Improvement)

CC19P GEL1 C02 – STRUCTURAL GEOLOGY AND GEOTECTONICS

(Applied Geology)

(2019 Admission onwards)

Time: Three Hours

Maximum: 30 Weightage

I. Explain any *four* of the following:

1. Stress-strain ellipsoids.
2. Cataclasites.
3. S-C fabrics.
4. Mantle Convection.
5. Continental shield areas.
6. Poppelley's rule.
7. Island arcs.

(4 x 2 = 8 Weightage)

II. Discuss any *four* of the following with neat sketches.

8. Interference patterns of superposed folds.
9. Behavior of rocks and minerals under deformation.
10. Physico-chemical and seismic properties of earth's interior.
11. Geodynamic evolution of the Indian plate.
12. Application of paleomagnetism in paleogeographic reconstruction.
13. Stereographic projection.
14. Tectonic evolution of continental crust.

(4 x 3 = 12 Weightage)

III. Write essays on any *two* of the following with neat sketches.

15. Illustrate the tectonic elements of collisional, accretionary and intracratonic orogens, and discuss Evolutionary history of the Himalayas in terms of collision tectonics
16. Explain different kinds of plate movements and features associated with plate interactions.
17. Illustrate the mechanism of folding with respect to Donath and Parker's genetic classification, and discuss Ramsay's geometric classification of folds.
18. Discuss the geometry & types of shear zones, shear sense indicators, and important rock types associated with the shear zones.

(2 x 5 = 10 Weightage)
