

19P149A

(Pages: 2)

Name:

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2019

(Supplementary/Improvement)

(CUCSS - PG)

CC15P GEL1 C02 – STRUCTURAL GEOLOGY AND GEOTECTONICS

(Applied Geology)

(2015 to 2018 Admissions)

Time: Three Hours

Maximum: 36 Weightage

(Draw neat sketches wherever necessary)

I. Answer **all** questions in *two or three sentences* each:

1. Lineation.
2. Continental shields.
3. Mohr circle.
4. Crenulation cleavage.
5. Geological maps.
6. Over thrust fault.
7. Mid-ocean ridge.
8. Axial plane foliation.
9. Epeirogeny.
10. Gravity anomaly.
11. Petrofabric analysis.
12. Dip isogons.
13. Island arcs.
14. Shear zones.

(14 × 1 = 14 Weightage)

II. Answer any **seven** questions, each not exceeding two pages:

15. Geophysical properties of diverging plate margins.
16. Geometric analysis using equal area projections.
17. Superposed folding and interference pattern.
18. Geodynamic evolution of Indian subcontinent.
19. Palaeoclimatic evidence of continental drift.
20. Inferring the styles of subduction from Wadati–Benioff zones.
21. Analysing deformation using strain ellipse.
22. Significance of minor folds in deciphering major structures.

23. Classification of joints based of their altitude and geometry.

24. Relate geomagnetic reversals and plate movement.

(7 × 2 = 14 Weightage)

III. Write essays on:

25. Discuss in detail the Donath and Parker scheme of fold classification emphasising mechanism of folding.

Or

26. Explain the formation of fabric elements in geological structures. Discuss the strain significance of different tectonites.

(1 × 4 = 4 Weightage)

27. Describe the bases for geometrical classification of faults. Demonstrate the relation between principal stress direction and type of faulting.

Or

28. Discuss in detail the mechanism of formation of island arcs, suture zones, volcanic arcs, folded mountain chains, accretionary wedges, deep ocean trenches, and transform faults in the light of plate tectonic theory.

(1 × 4 = 4 Weightage)
