16P147 (Pages:2) Name: …….

Reg. No……...

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2016

(Regular/Supplementary/Improvement)

(CUCSS-PG)

CC15P GEL1 C02 – STRUCTURAL GEOLOGY AND GEOTECTONICS

(Applied Geology)

(2015 Admission Onwards)

Time: Three Hours Maximum: 36 Weightage

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

1. Cylindrical folds.
2. Pumpelley's rule.
3. Mohr circle.
4. Ductile shear zone.
5. Fabric symmetry.
6. Gouge.
7. Sheet joints.
8. Fractures in rocks.
9. Distinguish between pitch and plunge.
10. Palaeomagnetism.
11. Island arcs.
12. Global seismic belts.
13. Epeirogeny.
14. Lithospheric plates. **(9 x 1 = 9 weightage)**

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

15. Principles of geologic mapping
16. Genetic classification of fold
17. Lineation
18. Fold interference pattern
19. Stereographic and equal area projections
20. Factors affecting rock deformation
21. Shield areas
22. Relation between orogeny and plate tectonics
23. Geodynamics of the Indian plate
24. Seismicity in Himalayas **(7 x 2 = 14 weightage)**

III Write essays on:

25. Explain the stress-strain relationship of elastic, plastic and viscous materials. Add a note on the stress-strain diagram.

Or

26. Describe fault geometry, fault nomenclature and features of fault plane

(1 x 4 = 4 weightage)

27. Describe how axial plane foliation and fracture cleavages are useful in the determination of major structures

Or

28. Critically evaluate the concepts of continental drift and plate tectonics.

(1 x 4 = 4 weightage)

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