

15U621

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Name:

Reg. No.....

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2018

(CUCBCSS-UG)

CC15U GL6 B17 - STRUCTURAL GEOLOGY AND GEOTECTONICS

Geology - Core Course

(2015 Admission)

Time: Three Hours

Maximum: 80 Marks

Draw neat sketches wherever necessary

Part A

(Answer *all* questions in one word or one sentence each)

1. Force that tend to deform a rock.
2. Fold with horizontal axial plane.
3. Low angle reverse fault.
4. Vertical component of displacement along a fault.
5. Angle between a lineation and the strike of the plane containing lineation.
6. Parameters used to represent the attitude of a planar feature.
7. Boundary demarcating upper mantle and lower mantle.
8. Plate boundaries marked by volcanism.
9. Liquid layer in the interior of the earth.
10. Failed arm of a triple junction.

(10 x 1 = 10 Marks)

Part B

Short answer type questions.

Explain any *ten* of the following

11. Contours.
12. Strain.
13. Hanging wall and Foot wall.
14. Polar wandering.
15. Palaeomagnetism.
16. Significance of unconformities.
17. Rift valley.
18. Overlaps and offlaps.
19. Horst and graben.
20. Inlier and outlier.

21. Low velocity zone.
22. Use of Brunton compass.

(10 x 2 = 20 Marks)

Part C

Paragraph type questions.

Answer any *five* of the following

23. Rules of V
24. Criteria for recognition of fault.
25. Island arcs.
26. Types of unconformities.
27. Features associated with convergent plate margins.
28. Geophysical and petrochemical characteristic of lithosphere and asthenosphere.
29. Mantle plumes and hot spots.
30. Tectonic evolution of Indian subcontinent.

(5 x 6 = 30 Marks)

Part D

Essay type questions.

Answer any *two* of the following

31. Explain the geometry and classification of folds.
32. What are joints? Give an account of the terminology and types of joints.
33. Give an account of mantle composition and petrology. Add a note on the different models of mantle convection.
34. Explain the origin of mountain belts in relation to plate tectonics.

(2 x 10 = 20 Marks)
