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Name:	•
Reg. No	

### SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2019

(Regular/Improvement/Supplementary)

(CUCBCSS - UG)

CC15U GL6 B17 - STRUCTURAL GEOLOGY AND GEOTECTONICS

Geology - Core Course (2015 Admission onwards)

Time: Three Hours

Maximum: 80 Marks

Draw neat sketches wherever necessary.

## Part - A

Answer *all* questions. Each question carries 1 mark.

- 1. The three dimensional orientation of geological features like bed, joint or fold.
- 2. A ----- bed always has a straight map trace, regardless of the topography it intersects.
- 3. Line connecting points of least curvature in a fold.
- 4. Fold with horizontal axial plane.
- 5. The planar arrangement of minerals in a metamorphic rock.
- 6. Joints which are essentially parallel to the strike of major structures in the rocks.
- 7. The inferred ultrabasic rock forming the upper mantle.
- 8. Failed arm of a triple junction.
- 9. New ocean crust is formed in ----- plate boundaries.
- 10. The focal point of three tectonic plates.

(10 x 1 = 10 Marks)

#### Part - B

Answer any *ten* questions. Each question carries 2 marks.

- 11. Apparent dip.
- 12. Overlaps.
- 13. Reclined fold.
- 14. Transform faults.
- 15. Outlier.
- 16. Strain.
- 17. Crenulation Cleavage.
- 18. Guyots.
- 19. Thrust fault.

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20. Subduction zone.

21. Remnant magnetism.

22. Rift valley.

(10 x 2 = 20 Marks)

# Part - C

Answer any *five* questions. Each question carries 6 marks.

23. Rule of V's.

24. Elements of a folded surface.

25. Mantle plumes and Hot spots.

26. Island arcs.

27. Types of lineations.

28. Geometric classification of fault.

29. Uses of topographic maps.

30. Discuss unconformities and their types.

 $(5 \times 6 = 30 \text{ Marks})$ 

#### Part - D

Answer any two questions. Each question carries 10 marks.

31. Give an account of the features that will help in recognizing faults on maps and in the field.

32. Describe the major features associated with divergent and transform plate margins.

33. What are joints? Give an account of the terminology, types and significance of joints.

34. Discuss the different stages of rock deformation.

 $(2 \times 10 = 20 \text{ Marks})$ 

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