

**18U621**

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Name: .....

Reg. No.....

**SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2021**

(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* ten questions in one word or one sentence each. Each question carries 1 mark.

1. What type of forces dominates at divergent plate margins?
2. Line connecting points of least curvature on a folded surface.
3. The angle at which a sedimentary bed is inclined from the horizontal is called the \_\_\_\_\_.
4. The fold in which the crest is sharp and angular.
5. Dip angle measured in any vertical plane that is not perpendicular to the strike.
6. Type of fault observed where the hanging wall is displaced upward relative to the footwall.
7. Fragments of oceanic lithosphere emplaced on a continent are known as \_\_\_\_\_.
8. How old are the oldest oceanic crustal basalts?
9. What types of faults are associated with shearing forces?
10. A fracture along which there has been no relative displacement is called \_\_\_\_\_.

**(10 × 1 = 10 Marks)**

**Part B** (Short Answer Type Questions)

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

- |                              |                      |
|------------------------------|----------------------|
| 11. Outcrop.                 | 17. Outlier.         |
| 12. Strike of beds.          | 18. Rift valleys.    |
| 13. Elastic limit.           | 19. Fault gauge.     |
| 14. Intersection lineations. | 20. Triple junction. |
| 15. Rake of a fault.         | 21. Hot spots.       |
| 16. Drag folds.              | 22. Columnar joints. |

**(10 × 2 = 20 Marks)**

**Part C (Paragraph Type Questions)**

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

23. Brunton Compass.
24. Foliations and various types.
25. Factors affecting the strength of rock.
26. Rule of V.
27. Models of mantle convection.
28. Unconformities and its significance.
29. Sea-floor spreading and age of oceanic crust.
30. Tectonic evolution Indian sub-continent.

**(5 × 6 = 30 Marks)**

**Part D (Essay Type Questions)**

Answer any *two* questions. Each question carries 10 marks.

31. Describe the theory of Plate tectonics. Elaborate on plate-tectonic models of mountain formation.
32. Describe a fold. Elaborate on the nomenclature of folds.
33. Describe a fault. Elaborate on recognition of faults in the field.
34. Describe Joints, classification, types and geological significance.

**(2 × 10 = 20 Marks)**

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