



**2021/TDC/CBCS/ODD/
GELDSC/GE-101T/124**

**TDC (CBCS) Odd Semester Exam., 2021
held in March, 2022**

GEOLOGY

(1st Semester)

Course No. : GELDSC/GE-101T

(Physical and Structural Geology)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

Answer any *fifteen* of the following questions :

1×15=15

1. What is lithosphere?
2. What is Jovian planet?
3. What is the composition of earth's atmosphere?
4. Define planetesimal.



(2)

5. Define focal depth.
6. What is vent eruption?
7. What is tectonic earthquake?
8. Define tsunami.
9. Define bed.
10. What is true dip of a bed?
11. Define geological cross-section.
12. What is quadrant bearing?
13. What is a brittle substance?
14. Define translation.
15. What is dilation?
16. State Hooke's law of elasticity.
17. What is paraconformity?
18. Define reverse faulting.
19. What is hanging wall of a fault?
20. What is master joint?

22J/620

(Continued)

(3)

SECTION—B

Write short notes on any five of the following :
2×5=10

21. Application of geology in environmental study
22. Composition of earth's core
23. Intensity of earthquake
24. Use of clinometer compass
25. Causes of volcanism
26. Contour lines
27. Elements of rotation
28. Classification of folds based on orientation of axial plane
29. Systematic and non-systematic joints
30. Throw and heave of a fault

22J/620

(Turn Over)



((4))

SECTION—C

Answer any *five* of the following questions : $5 \times 5 = 25$

31. Define weathering. Describe various physical processes of weathering. $1+4=5$
32. Describe the nebular hypothesis of origin of the solar system.
33. Discuss on the types and nature of seismic waves.
34. Describe various types of volcanic products.
35. What is a topographic map? Describe the essential components of a topographic map. $1+4=5$
36. Define structural geology. How do we analyze rock structures? At what scales rock structures are observed? $1+2+2=5$
37. What is fold? Describe the structural elements of a fold with suitable sketches.
38. Discuss the geometric classification of folds.
39. Describe the geological significance of unconformity.
40. Describe the geometric classification of fault with necessary diagrams.

★ ★ ★