

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

**GEOLOGY**

( 1st Semester )

Course No. : GELHCC-102T

( Mineral Science )

Full Marks : 50

Pass Marks : 20

Time : 3 hours

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

**SECTION—A**

Write briefly on any ten of the following : 2×10=20

1. Parameter
2. Edge
3. Form
4. Isomorphism

5. Polymorphism
6. Pseudomorphism
7. Physical properties of olivine
8. Mica types
9. Feldspar group
10. Nature of light
11. Optical properties of hornblende
12. Petrological microscope—basic parts
13. Gypsum plate
14. Mica plate
15. Relief

**SECTION—B**

Answer any five of the following questions : 6×5=30

16. Write on the axes of cubic system and illustrate symmetry and common forms of normal class of the system. 1+2+3<sup>rd</sup>
17. What is meant by crystal symmetry? Discuss the various symmetry elements with neat sketches. 1+5<sup>th</sup>

18. Write about stereographic projections of symmetry elements and forms. 6
19. Discuss the various aspects of crystal structure with neat sketches. 6
20. Describe silicate structures with neat sketches and examples. 6
21. Describe the physical properties of minerals with examples. 6
22. Write about the principles of optical mineralogy. 6
23. Write diagnostic optical properties of any one of the following pairs : 6
- (a) Nepheline-Quartz
- (b) Albite-Anorthite
24. What is extinction? Write with neat sketches the different types of extinction. 1+5=6
25. Define refractive index and write on its determination. 2+4=6

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