2023
B.A./B.Sc.
Third Semester
CORE – 7
GEOLOGY
Course Code: GLC 3.31
(Elements of Geochemistry)

Total Mark: 70 *Pass Mark: 28*
Time: 3 hours

Answer five *questions, taking* one *from each unit.*

UNIT–I

1. Define geochemistry and briefly explain the different branches of geochemistry. 2+12=14

2. Write notes on the following: 7×2=14
   (a) Atom and element
   (b) Chemical bonding

UNIT–II

3. What is geochronology? Explain different dating methods and add a note on correlation of marker horizon. 2+10+2=14

4. Write notes on the following: 7×2=14
   (a) Types of radioactive decay
   (b) Electron capture and spontaneous fission

UNIT–III

5. Define Milankovitch cycles. Explain the various cycles that operate on earth and the effect they have on Earth's long-term climate. 4+10=14

6. Write notes on the following: 7×2=14
   (a) Delta notation and fractionation factor
   (b) Scope of stable isotope geochemistry

UNIT–IV

7. Write an account on the composition of the bulk silicate earth. 14

8. Write notes on the following: 7×2=14
   (a) Size, shape, distance, orbit and rotation of the Earth
   (b) Types of meteorites

UNIT–V

9. Give the general properties and explain the geochemical behaviour of iron. 4+10=14

10. Write notes on the following: 7×2=14
    (a) Geochemical behaviour of magnesium
    (b) Geochemical behaviour of sodium
