2022
B.A./B.Sc.
Third Semester
CORE – 5
GEOLOGY
Course Code: GLC 3.11
(IGNEOUS PETROLOGY)

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

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

UNIT–I

1. Explain how a homogenous magma evolve into different igneous rocks. 14

2. Write notes on the following: 7×2=14
   (a) Geothermal gradient variationn with depth
   (b) Bowen's reaction series

UNIT–II

3. Write an elaborate note on the different textures of igneous rocks. 14

4. Write notes on the following: 7×2=14
   (a) Discordant igneous bodies
   (b) Mineralogical classification of igneous rocks

UNIT–III

5. Discuss in detail the phase diagrams and petrogenesis of basaltic magmas. 14

6. Discuss in deatail the albite-anorthite system. 14

UNIT–IV

7. Write in detail the magmatism related to divergent plate boundaries. 14

8. Write notes on the following: 7×2=14
   (a) Continental arcs
   (b) Intraplate volcanism

UNIT–V

9. What are felsic rocks? Give an account on the petrogenesis of granites. 2+12=14

10. Write notes on the following: 7×2=14
    (a) Petrology of kimberlites
    (b) Carbonatites
