

H-56073

Seat No. _____

M. Sc. (Part - II) Examination

April / May – 2003

Geology

Time : 3 Hours]

[Total Marks : 100

Instructions : (1) Draw **neat** diagrams wherever **necessary**.
(2) Your answer should carry the same number as per question paper.

1. Describe the ultrabasic rocks with reference to their chemistry, mineralogy, petrogenesis and economic importance. 20

OR

1. Discuss:- (1) Primary origin of spilite – keratophyre association, 20
(2) Migmatization.
2. Discuss the problem of granitization in light of recent developments. 20
Enumerate the criteria to distinguish between granites of different origin.

OR

2. Write notes on:- (1) Origin of basaltic magma, (2) Assimilation of shale and sandstone in granitic and basaltic magma, (3) Petrogenesis of carbonatites. 20
3. Discuss the problem of granite tectonics in brief. 20

OR

3. Write notes on:- (1) Classification of lamprophyres, (2) Anorthosites. 20
4. Describe:- (1) Post-depositional horizontal brittle deformational sedimentary structures, (2) Sedimentary differentiation, (3) Continental terrestrial environments. 20

OR

4. Review critically :- (1) Folk classification of limestones, (2) Mechanical analysis of sedimentary rocks, (3) Flute casts and slump structures. 20
5. Write notes on: (1) Phase rule and graphical representation of metamorphic mineral assemblages, (2) Concretions and solution principles in metamorphic differentiation, (3) Granulite and blue schist facies. 20

OR

5. Discuss :- (1) Facies of contact metamorphism, (2) Retrograde metamorphism of regionally metamorphosed rocks, (3) Metasomatism in dynamothermally metamorphosed rocks. 20

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[150]