



Name:
Enrolment No:

UPES

End Semester Examination, May 2024

Course: Metamorphic Petrology

Program: B.Sc Geology

Course Code: PEGS3057

Instructions: Draw suitable sketch wherever necessary

Semester: VI

Time : 03 hrs.

Max. Marks: 100

**SECTION A
(5Qx4M=20Marks)**

Q 1	Discuss the factors affecting metamorphism	04	CO1
Q 2	List down the medium to high pressure facies with their respective temperature range	04	CO2
Q 3	Explain Eclogite facies and its characteristic features	04	CO2
Q 4	Express metasomatism and its relationship with metamorphic reconstruction	04	CO2
Q 5	Tabulate the factors controlling the formation of metamorphic structure	04	CO1

**SECTION B
(4Qx10M= 40 Marks)**

Q 6	Classify metamorphic zones and suggest the best suited one with due justification	10	CO3
Q 7	Analyze the role of cataclastic metamorphism in the formation of mylonitic texture.	10	CO3
Q 8	Write short notes on a. metamorphic Zone b. Significance of metamorphic zone c. Isograd d. Index mineral e. Zones of contact metamorphism	02*5 =10	CO2
Q 9	Arrange metamorphic minerals with increasing grade and analyze the role of temperature in deciding the grade of metamorphism. OR Appraise four ways that compositional layering that was not originally present could form during metamorphism	10	CO3

**SECTION-C
(2Qx20M=40 Marks)**

Q 10	Explain Crystalloblastic series and evaluate its significance in metamorphism.	20	CO4
Q 11	Relate metamorphism with plate boundary/ margin. With a neat diagram, demarcate the sites of metamorphism with due justification/s. OR Differentiate between ACF & AKF Diagram. Using AKF diagram, calculate the molecular proportion and plot the mineral Hypersthene	20 5+15	CO4