

Instructions: (i) Draw neat diagrams whenever necessary.
(ii) Write proper answer number.

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- Q-1 Explain with suitable example the process of crystallization of bi- (14)
component magma made up of two miscible and immiscible components.
- OR
- Q-1 (a) Types, origin and composition of magma. (07)
(b) Pyrogenetic minerals. (07)
- Q-2 State the bases of classification of igneous rocks and explain NORM (14)
classification and Hatch scheme of classification.
- OR
- Q-2 (a) Intergrowth textures. (07)
(b) Ultramafic igneous rocks. (07)
- Q-3 Explain plutonic and thermal metamorphism of argillaceous rocks. (14)
- OR
- Q-3 (a) Dynamothermal metamorphism of carbonate rocks. (07)
(b) Cataclastic metamorphism. (07)
- Q-4 Define projective analysis. Explain abukama and amphibolite facies with (14)
index minerals.
- OR
- Q-4 (a) Facies and phase diagrams of metamorphism. (07)
(b) Relationship between metamorphism and deformation. (07)
- Q-5 **Attempt any seven questions out of twelve.** (14)
- (i) Define polysilicate minerals with examples.
(ii) Define with sketch the terms euhedral and subhedral crystals.
(iii) Draw a figure of panidiomorphic texture.
(iv) Define devitrification with example.
(v) With the help of neat sketch explain holohyaline texture.
(vi) Give tabular form of Bowen reaction series.
(vii) Give mode of formation of hornfels and mylonite.
(viii) How undulose extinction developed in minerals? Give example.
(ix) Define pyrometamorphism and shock metamorphism.
(x) Give the name of composition in 'ACF' and 'AFM' diagrams
(xi) State bases for the classification of metamorphic rocks.
(xii) Draw a diagram of ideoblastic texture with example.