

MRT 161-3 Mineralogy and Petrology I

1. (a) With an example describe how streak can be used as a mineral diagnostic tool.
(b) Write a short note on different chemical bonds found in minerals and how they affect their physical properties.
(c) Describe the inosilicate structure with clear illustrations.

2. (a) Describe open and closed crystal forms with examples.
(b) Miller Index of both the orthorhombic dipyramid and the octahedron takes (111) form. Explain why the same Miller Index can be found in different crystal systems irrespective of the differences in axial characteristics.
(c) Describe the symmetry of 4/m 2/m 2/m crystal class. Illustrate your answer with diagrams.

3. (a) Describe the formation of sedimentary rocks in detail.
(b) Classify sedimentary rocks.
(c) Write an essay on metamorphism.

(Total Marks 20 x 3 = 60)

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