

NOUFAAL-12



Department of Geology
Aligarh Muslim University

(Practical)

M.Sc. (Applied Geology) I Semester
2008-09

Practical Examination – ML1 (GLM-7075)

Ore Geology, Mining Geology, Structural Geology and Survey

Time: 3 Hours

Max Marks: 70

Note: Answer all questions

Ore Geology: (18 Marks)

Q 1(a). Identify the ore minerals in the given polished section. Describe the various physical and optical properties on the basis of which you make such identifications. 10

Q 1(b). Give a list of all ore minerals present in your specimen arranged in order of increasing polishing hardness. 08

Mining Geology: (17 Marks)

Q 2(a). Draw a labeled diagram of open underhand stope and enlist its advantages and disadvantages. 07

Q 2(b). Draw a labeled diagram of various mine openings. Briefly describe the purpose and use of various mine openings. 10

Structural Geology: (18 Marks)

Q 3(a). Draw a geological cross section along the line (XY) in the given geological map. Briefly discuss the geological history of the area. 10

Q 3(b). Sedimentary beds on the northwestern limb of an anticline strike $55^{\circ}E$ and dip $50^{\circ}NW$, while those constituting the southeastern limb strike $45^{\circ}E$ and dip $30^{\circ}SE$. Determine the trend and plunge of the axis of this anticline. 08

Survey: (17 Marks)

Q 4. Survey the allotted area with the help of a theodolite. Select a suitable scale so that the plan fits in the sheet provided for the purpose. Obtain at least 20 readings to prepare the plan. 17