

MIZORAM PUBLIC SERVICE COMMISSION

GENERAL COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF JR. GRADE OF MIZORAM FOREST SERVICE (ASST. CONSERVATOR OF FORESTS) UNDER ENVIRONMENT, FOREST & CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF MIZORAM, 2023

GEOLOGY

Time Allowed : 3 hours

Full Marks : 100

The figures in the margin indicate full marks for the questions.

*Answer any 5 (five) questions
taking not more than 3 (three) questions from each section.*

SECTION - A

1. (a) Discuss the plate driving forces and slowing them in plate movement. (10)
(b) What are the Earthquake parameters and causes of Earthquake? (10)
2. (a) Explain the General procedure for photo interpretation in Aerial photograph. (10)
(b) Describe various methods of weathering and explain various types of drainage pattern. (5+5=10)
3. (a) What is lineation? Explain different types of lineation. (2+8=10)
(b) Explain **any two** with a neat diagram. (2×5=10)
 - (i) Andersonian faulting
 - (ii) Tensile Crack Development.
 - (iii) Geometrical classification of fold
4. (a) Describe different modes of preservation of fossils. (10)
(b) Describe the distribution and classification of Precambrian rocks in India. (10)
5. (a) Discuss the evaluation of stability and performance of Dams foundation. (10)
(b) Explain **any two**: (2×5=10)
 - (i) Aquifers
 - (ii) Porosity
 - (iii) Storage coefficient

SECTION – B

6. (a) Describe Bowens Reaction principle and its application. (10)
(b) Describe axis, symmetry and forms present in Isometric system. (10)
7. (a) Explain types and agents of metamorphism. (10)
(b) Discuss the graphical representation of mineral assemblages in ACF & AKF diagram. (10)
8. (a) Discuss the Heavy minerals and their relationship with provenance. (10)
(b) Explain significance of different sedimentary structures. (10)
9. (a) Enumerate the control of Ore localization. (10)
(b) Explain **any two**: (2×5=10)
(i) Techniques of sampling
(ii) Ore dressing
(iii) Geophysical prospecting
10. (a) Write an account on the utility of trace elements in igneous petrogenesis. (10)
(b) Write different types of Landslide and describe the impact of urbanization on landslide occurrences in Mizoram. (4+6=10)

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