

MIZORAM PUBLIC SERVICE COMMISSION
DEPARTMENTAL EXAMINATION FOR JUNIOR GRADE OF M.E.S. (AE/SDO)
UNDER IRRIGATION & WATER RESOURCES DEPARTMENT
GOVERNMENT OF MIZORAM.
(JULY - 2025)

ENGINEERING PAPER – II
(CIVIL ENGINEERS)

Time Allowed : 3 hours

FM : 100 PM : 40

All questions carry equal mark of 5 each.
Attempt all questions.

PART – A (50 MARKS)

1. Explain the terms ‘evaporation’, ‘transpiration’, ‘evapotranspiration’, ‘infiltration’.
2. How is consistency of rainfall record at a station tested?
3. How does run-off occur?
4. Write brief note on watershed management.
5. What are factors on which run-off depends?
6. Write different methods to stabilize the slope.
7. What is ‘index properties of soil’? List the properties under different categories.
8. Explain the mechanism of landslides.
9. A deposit of fine sand has porosity of 45%. Estimate the hydraulic gradient to develop quicksand condition if the specific gravity of grain is 2.7.
10. Suggest the method to prevent landslides in the state of Mizoram especially in the city areas.

PART – B (50 MARKS)

11. Describe the information which can be obtained from contour line.
12. Write the different use of Auto Level instrument.
13. Describe the characteristics of contours (five points).
14. Write the factor to keep in mind during preparation of maps.

- 15.** Explain the terms 'Azimuth', 'Magnetic Bearing', 'Grid Bearing', 'Fore Bearing', 'Back Bearing'.
- 16.** Write the different stages in execution of project.
- 17.** Write the general contents of NIT (Notice Inviting Tender).
- 18.** What are Earnest Money Deposit and Security Deposit?
- 19.** Define Earliest Start Time (EST) and Earliest Finish Time (EFT).
- 20.** Explain the method of procurement of equipment i.e Purchased, Rented and Leased.

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