

Roll No.

Total Pages : 2

CMDQ/M-24

5581

ENGINEERING GEOLOGY

Paper–GT-805

Time Allowed : 3 Hours]

[Maximum Marks : 100

Note : Attempt **five** questions in all, selecting **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. Brief the following:
 - (a) Scope of Engineering Geology.
 - (b) Strength of rocks.
 - (c) Wedge failure.
 - (d) Silty sand and sandy silt.

UNIT-I

2. Define and discuss dams in detail. Why geology is important in dam construction projects ?
3. Write notes on the following :
 - (a) Tunnels in Hydropower projects.
 - (b) Geological considerations for Tunnel.

UNIT-II

4. Discuss various in-situ tests carried out for evaluation of engineering geological properties of rocks.
5. Write notes on the following :
 - (a) Classifications of discontinuities and their corresponding ratings in RMR scheme.
 - (b) Effect of porosity and permeability on strength of rocks.

UNIT-III

6. Discuss the role of flood in inducing landslides and vice-versa. Also discuss their impact and remedy.
7. Write notes on the following :
 - (a) Physical character of building stones.
 - (b) Modes of slope failure.

UNIT-IV

8. Define and classify soil. In discuss mechanical properties of soils.
9. Write notes on the following :
 - (a) Importance of Engineering Geological maps.
 - (b) Engineering Geological investigations for highway.