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NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR
(H.P.)

DEPARTMENT OF CIVIL ENGINEERING
END SEMESTER EXAMINATION, DECEMBER 2022
Engineering Geology & Rock Mechanics CE-213

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Note: Attempt all questions and make illustrious diagrams wherever necessary.

Time: 3 Hrs.

MM. 50

- Q. 1 Give a detailed account of geological work of Glaciers. (7)
How important is this from civil engineering perspective?
- Q. 2 What are different types of faults? What aspects of (7)
geological structures are relevant to civil engineering
practices?
- Q. 3 Land degradation and its effects cause environmental (7)
hazards as a natural phenomenon and human's interaction
with nature in several areas. Explain citing example of
Landslide.
- Q. 4 "Method of tunnel construction is determined by the types (7)
of rocks and geological structure at the site" justify this
statement?
- Q. 5 List down major criteria that are used in the selection of (7)
dam sites.
- Q.6 What is meant by strength in rocks? Based upon type of (5)
(a) loading and the stresses how can it be classified? Describe
in detail any of these types.
- (b) In a Brazilian Test the diameter of the sample was 50 mm (4)
and the thickness was 25 mm. The failure occurred at a
load of 1964.28 kg, calculate the tensile strength of the
specimen?
- Q. 7 Describe Terzaghi's rock classification for assessing (7)
support requirements when tunneling in rocks.
