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SECTION: A

SUBJECT: GEO-TECHNICAL ENGINEERING (LAB)

INSTRUCTOR: ENGR. MUNEEB.

MODULE: 6TH.

QUESTION: 01;

Q:- What is the difference between proctor test and standard penetration test?

STANDARDER PROCTOR TEST

- Used to determine the compaction of different types of soil.
- The graph of this test is probably in shape.
- Shows the relation between the moisture content and density of soils.

• This test is done to determine the optimal moisture content.

• The max optimum moisture content is achieved for the highest value of dry density.

STANDARDER PENETRATION TEST

• This method is simple and also inexpensive.

• This test is carried out in bore hole.

• It is useful to determine the relation density and the angle of shearing resistance of cohesion less soil.

• It is common in site method to determine different geotechnical properties of soil.

• It is also used to determine the uncontrolled and unconfined compressive strength of cohesive soils.

QUESTION: 02:

Q: What is the classification of soil based on free swell index?

FREE SWELL INDEX.	DEGREE OF EXPANSIVENESS.	PLASTIC LIMIT.
< 20	LOW	0-35%
20-33	MODERATE	25-50%
35-50	HIGH	35-65%
> 50	VERY HIGH	745%

QUESTION: 03,

Q: Why is permeability test for soil important?

ANSWER:

Permeability test for soil is important because of the following reasons:

- 1) To know whether plant roots are being nourished by water.
- 2) In engineering, it is important to know whether consolidation occurs so it is observed.
- 3) It is also helpful in fisheries to know about the fish culture.
- 4) To check if there is seepage of water in ground.