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1) Standard Proctor Test

• It is used to determine the compaction of different type of soil.

• It is used in parabolic graph.

• It also give relation b/w the moisture content and density of soil.

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

Standard Penetration Test

• It is simple and an expensive method.

• It is carried out in borehole.

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

• It can be also used to determine the uncontrolled or uncombined compressive strength of cohesive soils.

2) Classification of Soil based on Surface on Free Swell Index?

Ans.

<u>Free Swell Index</u>	<u>Degree of expansive</u>	<u>Plastic Limit</u>
< 20	Low	0-35%
20-38	Moderate	25-50%
35-50	High	35-65%
> 50	very high	> 45%

(3)

Permeability Test Importance for soil:

Permeability test is important because of the following reason:

- (1) To know whether plant root 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 into ground.