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Section :- A

Subject :- Geotechnical Engineering (Lab)

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Module :- 6th

1) What is the difference between proctor test and Standard penetration test?

Standard Proctor test

Standard Penetration test

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| <ul style="list-style-type: none">• It is used to determine the compaction of different types of soil.• Its graph is parabolic in shape.• It also gives relation between the moisture content and density of soils.• It is in situ test which | <ul style="list-style-type: none">• It is simple and inexpensive method.• It is carried out in bore hole.• It is useful to determine the relative density and the angle of shearing resistance of cohesionless soil. |
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is determined to determine the optimal moisture content

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

• It's common is site method to determine different geotechnical properties

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

2) What is the Classification of soil based on free swell index?

<u>Free swell index</u>	<u>Degree of Expansion</u>	<u>Plastic Limit</u>
< 20	Low	0 - 35%
20 - 35	Moderate	25 - 50%
35 - 50	High	35 - 65%
> 50	Very high	> 45%

3) Why is permeability test for soil important?

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

1) To know whether plant roots are being nourished by water

2) In engineering, it is important to know whether consolidation occurs ~~to it~~ so it is observed.

- 3) AEs is also helpful in fisheries ; to know about the fish culture. (3)
- 4) To check if there is seepage of water into ground.

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