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Section

B

Semester

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Subject

Geotechnical (Lab)

Submitted To,

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QNO1:- What is the difference
b/w standard proctor test
and standard penetration test?

standard proctor
test

⊙ It is used to determine the compaction of different soil.

⊙ It also give relation b/w the moisture contents and density of soil.

⊙ Its graph is parabolic in shap.

standard penetration
test

⊙ It is used to determine the relative density and the angle of shearing resistance of cohesionless soil.

⊙ It is comen in situ test method to determine different geotechnical properties of soil.

⊙ It is sample and expensive method.

① It is initial test which is done to determine the optimal moisture content.

② The maximum moisture content is achieved for the highest value of dry density.

③ It can be also determine the Unconfined and or unconfined Compressive strength of cohesive soil.

④ Its carried out in brook.



QNO2:- What is 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 - 38	moderate	25 - 50%
35 - 50	High	35 - 65%
> 50	very High	> 45%

Q NO 3:- Why permeability test for soil is important?

⊙ Permeability test is important for soil due to following reasons.

- ⊙ To design of earth dams is very much based upon the permeability test of the soil used.
- ⊙ The stability of slopes and retaining structure can be greatly affected by the permeability of soil.
- ⊙ Filter made of soil are design based upon permeability test.
- ⊙ Rate of settlement of ^{saturated} soil under load checked by permeability test.
- ⊙ To checked if there is seepage of water into ground.

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① To know about Fish culture.

② To know about ~~whether~~^{whether} Consolidation is
Occure So it is observed.

