

(1)

Name: M. Mustafa

ID: 7866

Section: B:

Subject: Geotechnical Engineering
(Lab)

Instructor: Engr Sir Muneeb:

Module: 6th

Q.N.O: (1)

Standard Proctor
Test

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

* Its graph is parabolic in shape.

Standard Penetration
Test:

* It is simple and in expansive method.

* It is carried out in bore hole.

P.T.O

(2)

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

* It is in situ test which is done to determine the optimal moisture content

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

* It is useful to determine the relative density and the angle of shearing resistance of cohesionless soil.

* It is common in situ method to determine different geotechnical properties of soil

* It can be also used to determined the uncontrolled or confined compressive strength of cohesive soils.

QNO! (2)

ANS:

Free Swell Index

< 20

20 - 38

35 - 50

> 50

Degree of Expansion

Low

Moderate

High

Very High

Plastic Limit

0 - 35 %

25 - 50 %

35 - 65 %

> 45 %

(3)

Q.N.O: (3)

ANS:

Permeability test for soil is important because of the following

- (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.