

\*NAME\*

-> Muhammad ABBAS

ID. No.~

7852

Subject:-

GEO TECH LAB

\*ASSIGNMENT No. 1\*

Date:- 15-May-2020

Q1 What is the standard proctor test and standard penetration test ?

⇒ According to proctor the compaction of soil mass is dependent on the following four major factors.

- 1 Soil Types.
- 2 Moisture Content.
- 3 Compactive Effort.
- 4 Dry Density of the soil.

⇒ For a given type of soil and compactive effort the dry density of a soil mass varies with moisture content.

⇒ At low moisture content the internal friction and

②

adhesion between the particles contribute to the resistance to compaction-

As the moisture content increases the particles develop moisture films around them which help in lubricating the particles thus increases the work ability of soil mass-



Q2 What is the classification of soil based on free swell index?

### SWELL INDEX :-

The free swell index increases in volume of soil without any external constraint when subjected to submerged in water

Free swell index	Degree of expansiveness	L.L	P.L	S.L
< 20	Low	0-50	0-35%	< 17%
20 - 35	Moderate	40-60%	25-50%	8-18%
35 - 50	High	50-75%	36-65%	6-12%
> 50	Very High	> 60%	> 45%	< 10%

(4)

⇒ Why permeability test of the soil is important?

⇒ Soil Permeability :-

The property of the soil to transmit water and air is

one of the most important qualities to

consider for fish culture -  
A pond built in

imperable soil will lose little water seepage.

Sand :- 5.0

Clay loam :- 0.8

Silty clay :- 0.25

Clay :- 0.05



## Penetration test or Pen Test:-

Refers to simulated cyber attack that being made to exploit the system at a certain point to detect the exploitable vulnerabilities concerned with the system security.

① Once such a vulnerability found then it is used to exploit the system to gain access to the featured data.

② This kind of testing comes under ethical hacking and the person performing penetration test is known as an ethical hacker.

③ The condition of a system is exploitable there when there are multiple