Assignment 00

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. **Due on 2018-07-30, 12:00 IST.**

Please answer to all the questions, there is no negative marking for wrong answers. However, marks obtained in this assignment will not be considered for evaluation of final grade.

State whether the following statements are true or false. Please write either ‘true’ or ‘false’ in the response box. Do not put white space or any other extra characters.

1) The void ratio of soils can be more than 20.

No, the answer is incorrect.
Score: 0
Accepted Answers: 
*(Type: String) True* 

2) Degree of saturation can be changed even when the gravimetric water content in the soils remains same.

No, the answer is incorrect.
Score: 0
Accepted Answers: 
*(Type: String) True* 

3) The liquid limit of soil increases with increase in the fine content.

1 point
5) Dry density represents the density of soils in dry condition.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) False

6) During consolidation process, as the pore water dissipates from the soil system, the degree of saturation in soils decreases.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) False

7) Quick sand condition occurs when the seepage pressure is less than the pressure due to the submerged weight of the soil.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) False

8) The effective stress in soil decreases when seepage occurs in downward direction.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) False

Questions may contain more than one correct options. Please choose all the correct options. Partial marking is given for partially correct responses provided there is no wrong answer selected.

9) For a fully saturated soil, the gravimetric water content can be

- [ ] Equal to 100%
- [ ] More than 100%
A clayey soil has a water content of 150% in its natural condition. The liquid limit determined from the laboratory test was found to be 110%. The consistency index of the soil at its natural water content will be,

- Less than 100%
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Equal to 100%
- More than 100%
- Less than 100%

Particle size analysis of fine grained soil is performed using,

- Pipette method
- Hydrometer
- Dry sieving
- None of the above.

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Pipette method
- Hydrometer

Swelling behavior is generally observed in,

- Bentonite
- Kaolinite
- Red soil
- Sands

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Bentonite

In proctor compaction test, the compaction energy depends on,

- Hammer weight
- Height of fall
- Cross-section of the compaction mould
- All of the above
A saturated clay soil specimen of 1.5 cm thickness was subjected to a consolidation pressure of 100 kPa from an initially zero stress condition in an oedometer test apparatus. The measured final thickness of the soil specimen was 1.425 cm. The value of coefficient of volume change is _______ m$^2$/KN.

15) Maximum possible void ratio for a uniformly graded sand of perfectly spherical grains is ________.