

S.B. Roll No.....

SOIL AND FOUNDATION ENGINEERING
5th Exam/Civil/2517/May'18

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. a) Fill in the blanks.

15x1=15

- i. the pioneered the concept of soil mechanics.
- ii. Aeolian deposits are formed by
- iii. Silt is grained soil.
- iv. Peat is an example of soil.
- v. Porosity is also known as
- vi. Void ratio of coarse grained soil is Than the fine grained soil.
- vii. China clay is an example of Group of soil.
- viii. The degree of plasticity of sand is
- ix. The consistency limits are also known as
- x. The effect of pore water pressure is to the volume of soil mass.

b) State True or False.

- xi. The pressure of water below W.T is less than the atmosphere.
- xii. Poor pressure is known as neutral stress because its value is always zero.
- xiii. Soils in the field are subjected to direct shear stress.
- xiv. Compaction and consolidation are the same processes.
- xv. Grouting technique is used for clays.

SECTION-B

Q2. Attempt any six questions.

6x5=30

- a. What are the factors which affect the compaction?
- b. Differentiate between compaction & consolidation.
- c. Explain Darcy's law and give its limitation.
- d. Give the concept of Shallow and Deep foundation.
- e. Define permeability. Give its concept.
- f. Define total stress and effective stress.
- g. Explain the difference between void ratio and porosity.
- h. Explain the factors affecting bearing capacity o soil.

SECTION-C

Q3. Attempt any three questions.

3x10=30

- i. Explain the factors which effect permeability of soil.
- ii. Describe the various methods of compacting soils.
- iii. How will you determine the bearing capacity of soil by SPT?
- iv. Define well foundation. Explain its necessity and also draw with neat sketch.