

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY (VSSUT), ODISHA
Odd Mid Semester Examination for Academic Session 2025-26

COURSE NAME : BTech

SEMESTER : 1st

BRANCH NAME : A,B,C,D,E,F,G,H

SUBJECT NAME: Basic Civil Engineering

FULL MARKS : 30

TIME: 90 Minutes

Answer All Questions.

The figures in the right hand margin indicate Marks. Symbols carry usual meaning.

- Q1. Answer all Questions. [2 × 3]
- a) What is a lintel and why it is necessary in a building ? - CO1
 - b) State the difference between shallow foundation and deep foundation. - CO1
 - c) What are the various qualities of a good brick ? - CO2

- Q2. [8]
- a) Briefly explain various disciplines in civil engineering. - CO1
 - b) What is the importance of civil engineering in the infrastructure development of a country ?

OR

- a) What are the different types of residential buildings classified by NBC ? - CO1
- b) **Briefly describe basic elements of a residential building ?**

- Q3. [8]
- a) List the constituents of cement and their function. - CO2
 - b) State and explain various classes of bricks ?

OR

- a) What are the functions of sand in a cement mortar and concrete ? - CO2
- b) Explain the steps involved in construction of concrete structures.

- Q4. [8]
- a) State and explain various types of shallow foundation. - CO1
 - b) Explain the bearing capacity of soil. Also define ultimate bearing capacity and safe bearing capacity.

OR

- a) What is the difference between PCC and RCC? Also explain the importance of steel in RCC structures. - CO2
- b) Explain classification of different rocks based on their origin ?