

**VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY (VSSUT), ODISHA**  
**Even Mid Semester Examination for Academic Session 2024-25**

COURSE NAME: B.Tech.

SEMESTER: 2<sup>nd</sup>

BRANCH NAME: All Branches  
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) Discuss the differences between Plinth area and carpet area with a neat sketch. - CO1
  - b) Differentiate between PCC, RCC and Pre-stressed concrete. - CO2
  - c) Explain the importance of transportation. - CO3
- Q2. [8]
- Write down different components of simple single storied residential building along with function of each component with suitable sketch. - CO1
- OR
- (a) Write down different Types of Buildings according to NBC India along with their use/ purpose. [4+4]  
- CO1
  - (b) Write six important factors to be considered in the selection of site for a building.
- Q3. [4+4]
- A) Explain the classification of bricks based on their quality. Write down the advantages of bricks as a construction material. - CO2
  - B) Discuss different types of cement along with their properties and use.
- OR
- a) Explain the importance of mortar in masonry work. What are the different types of mortar and their applications? - CO2
  - b) Discuss the advantages and limitations of timber as a construction material. How is it classified based on its properties?
- Q4. [4+4]
- A) Describe the advantages and limitations of rail transport. - CO3
  - B) Depict the key feature and advantages of road transport.
- OR
- a) Explain the key feature and advantages of water transport. - CO3
  - b) Illustrate the key feature and limitations of air transport.