



Yashoda Shikshan Prasarak Mandal's  
**YASHODA TECHNICAL CAMPUS, SATARA**  
**FACULTY OF ENGINEERING**

NH-4, Wadhe Phata, Satara., Tele Fax- 02162-271238/39/40  
Website- <https://engg.yes.edu.in/> Email- principalengg\_ytc@yes.edu.in  
Approved by AICTE- New Delhi, Govt. of Maharashtra (DTE, Mumbai)  
Affiliated to DBATU Lonere,



**BASIC SCIENCES AND HUMANITIES DEPARTMENT**

Course: Basic Civil and Mechanical Engineering (24AF2CMEES208)

Class: First Year

Academic Year: 2025-26

Sem:II

Course Outcome: After the successfully completing the course students will be able to -

24AF2CMEES208\_1 : Understand various construction materials used in civil engineering

**Assignment No 1**

| Sr No | Questions                                                                                                                                | BL | CO                  | PO             |
|-------|------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|----------------|
| 1.    | Explain various branches of civil engineering.                                                                                           |    | 24AF2<br>CMEES208_1 | 1,5,7<br>9, 11 |
| 2.    | Discuss the role of a civil engineer in various construction activities.                                                                 |    |                     |                |
| 3.    | Illustrate about cement as a construction materials.                                                                                     |    |                     |                |
| 4.    | Illustrate the classification of concrete.                                                                                               |    |                     |                |
| 5.    | Describe about the classification of cement.                                                                                             |    |                     |                |
| 6.    | Discuss in detail about mortar, its types and its properties.                                                                            |    |                     |                |
| 7.    | What is meant by seasoning of Timber. What are the characteristics of good timber, explain the use of timber as a construction material. |    |                     |                |
| 8.    | Explain the use of steel as a construction material.                                                                                     |    |                     |                |
| 9.    | Discuss the characteristics of good bricks.                                                                                              |    |                     |                |
| 10.   | Discuss the use of glass as construction material.                                                                                       |    |                     |                |

Prepared by

Approved by

Course Coordinator

HoD

**BASIC SCIENCES AND HUMANITIES DEPARTMENT**

**Vision:**

YTC, Satara looks forward to become a globally renowned institute of center of excellence in technology and management education for rural community for technical and professional Knowledge

**Mission:**

- To achieve the quality and an academic excellence in the frontier engineering areas and management relevant primarily to the nation.
- To train and produce the highly skilled and globally competent professionals through quality technical education and to prepare them with industry ready engineers for immediate employment and entrepreneurship.
- To inculcate and develop the research culture can be attributed to quality outputs in terms of research practices and products.
- To develop the professionals having high values of ethics, lifelong learning, teamwork, leadership and social responsibility.
- To enhance and empower the rural community by improving the productivity of the agricultural sector.



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Course: Basic Civil and Mechanical Engineering (24AF2CMEES108)

Class: First Year

Academic Year: 2025-26

Sem: ODD

Course Outcome: After the successfully completing the course students will be able to -

24AF2CMEES108\_2 : Understand various concepts of building components and building planning

### Assignment No 2

| Sr No | Questions                                                                                                                    | CO                  | PO                 |
|-------|------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|
| 1.    | What is the primary function of a building's foundation?                                                                     | 24AF2<br>CMEES108_2 | 1,2,<br>5,8,<br>11 |
| 2.    | Differentiate between shallow and deep foundation.                                                                           |                     |                    |
| 3.    | What is the role of a superstructure in a building? Name some key components of the superstructure.                          |                     |                    |
| 4.    | Illustrate the classification of Shallow Foundation.                                                                         |                     |                    |
| 5.    | Illustrate the classification of Deep Foundation.                                                                            |                     |                    |
| 6.    | What are the requirements of good stairs?                                                                                    |                     |                    |
| 7.    | What is the role of plumbing and sanitation in building planning?                                                            |                     |                    |
| 8.    | Why is proper ventilation important in building design? What are some common types of ventilation systems used in buildings? |                     |                    |
| 9.    | Explain the importance of windows in a building. How do they contribute to ventilation and lightning?                        |                     |                    |
| 10.   | Describe the function of a beam and column in a building's structural system.                                                |                     |                    |

**Subject Teacher**

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Course: Basic Civil and Mechanical Engineering (24AF2CMEES108)

Class: First Year

Academic Year: 2025-26

Sem: ODD

Course Outcome: After the successfully completing the course students will be able to -

24AF2CMEES108\_3: Apply principles of surveying to solve engineering problem

**Assignment No 3**

| Sr No | Questions                                                                                             | CO                  | PO                   |
|-------|-------------------------------------------------------------------------------------------------------|---------------------|----------------------|
| 1.    | Explain the principles of Surveying.                                                                  | 24AF2<br>CMEES108_3 | 1,2,<br>3,5,<br>8,11 |
| 2.    | List and explain the various instruments used in surveying.                                           |                     |                      |
| 3.    | Define leveling and explain the different types of leveling instruments used in surveying.            |                     |                      |
| 4.    | Describe the different methods of measuring distance in surveying.                                    |                     |                      |
| 5.    | What is Benchmark. Elaborate different types of Benchmark.                                            |                     |                      |
| 6.    | Define i) Contour ii) Contour Map . Explain the features of contour lines.                            |                     |                      |
| 7.    | Define the terms i)Backsight ii)Foresight iii)Reduced level iv)Benchmark v)Baseline vi)Offset         |                     |                      |
| 8.    | Explain Chain Surveying , its process and mention its types.                                          |                     |                      |
| 9.    | Illustrate Plane Table Surveying. What are the advantages and disadvantages of Plane Table Surveying. |                     |                      |
| 10.   | Discuss the various methods of finding area of given stretch of land.                                 |                     |                      |

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