



WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:II
Class:FY	Program:B.Tech
Branch Code:FYE/CIV	Pattern:2023
Name of Course:Introduction to Civil Engineering	Course Code:2300118C
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 2 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Marks CO

Question No. 1

- 1 Explain the interdisciplinary role of Civil Engineer in different branches. (6) CO1

Question No. 2

- 2 Explain surveying as basic area of Civil Engineering (6) CO1

Question No. 3

- 3.a) Differentiate between Natural and Artificial Sand (6) CO2

OR

- 3.b) State the definition and Purpose of Foundation (6) CO2

- 3.c) Explain the following materials and list their uses in building construction: (5) CO2

1. Reinforcement 2. Stone 3. Cement

OR

- 3.d) Explain the following materials and list their uses in building construction: (5) CO2

1. Rapid Hardening Cement 2. Plain Cement Concrete

- 3.e) What are the various types of steel used in building construction? Also state their uses in construction (5) CO2

OR

- 3.f) What do you mean by grade of Concrete? State the various grades of Concrete with their nominal proportion (5) CO2

Question No. 4

- 4.a) Define Foundation. Also state the various purpose of providing shallow foundation (6) CO2

OR

- 4.b) Define Raft Foundation. Also explain under what circumstances Raft Foundation is desirable? (6) CO2
- 4.c) Explain the following with a neat sketch: (5) CO2
1. Isolated Footing 2. Combined Footing 3. Continuous Footing

OR

- 4.d) Explain the following: (5) CO2
1. Settlement 2. Superstructure 3. Substructure
- 4.e) Discuss in brief the merits and demerits of Load Bearing Structure (5) CO2

OR

- 4.f) Discuss in brief the various loads to be considered while designing residential buildings. (5) CO2

Question No. 5

- 5.a) Explain in brief the following principles of planning: (6) CO3
1. Aspect 2. Grouping 3. Roominess

OR

- 5.b) Explain in brief the following principles of planning: (6) CO3
1. Orientation 2. Economy

- 5.c) For the given data, (5) CO3

A) Calculate the total FSI consumed:

(i) Built up area-200m²

(ii) Total Plot area is 300 m²

(iii) Carpet area is 0.7 times built up area

B) If allowable FSI is 1, will the plan be sanctioned? Justify your comment.

OR

- 5.d) A rectangular plot measures 20 x 30 m. The front and rear spacing is 3 m and side margin is 1.5 m. (5) CO3
Permissible FSI is 1.2. A G + 1 storeyed building is to be constructed to consume full FSI.
Determine the Built up area on each storey.

- 5.e) State the different considerations for selection of a site for a Commercial Building. (5) CO3

OR

- 5.f) State the list of important documents to be submitted to the competent authority for sanction of building plan (5) CO3

..... End of question paper.....