

CEE

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B.Sc. Egg. (CEE)/ 1<sup>st</sup> Sem.

23 Dec, 2023. (Morning)

**ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)**  
**ORGANISATION OF ISLAMIC COOPERATION (OIC)**  
**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING**

TERM : SEMESTER FINAL EXAMINATION

WINTER SEMESTER: 2022-2023

COURSE NO. : CEE 4101

TIME: 3 Hours

COURSE TITLE: Introduction to Civil Engineering

FULL MARKS: 100

There are 6 (Six) questions. Answer all. Do not write on this question paper. The figures in the right margin indicate full marks.

	Full Mark	CO	PO
1 (a) Describe briefly the factors that need to be considered for choosing a foundation.	5	[1]	[1]
(b) Describe briefly various types of shallow foundation.	5	[1]	[1]
(c) When should we use pile foundation? Describe its type and function.	5	[1]	[1]
2(a) Describe the design steps of structural engineer.	6	[2]	[1]
(b) Discuss the essential skills of structural engineer.	4	[1]	[1]
(c) Structural engineering deals with "bones and muscles" of man-made structures – please justify.	5	[2]	[1]
3 Write Short Notes on:	5x5	[1]	[1]
(a) First Class Brick Vs Third Class Brick			
(b) Rigid Pavement Vs Flexible Pavement			
(c) Load Bearing Structure Vs Frame Structure			
(d) OPC Vs PCC			
(e) Strap footing Vs Strip footing			
4(a) Steel is being widely used in construction. Explain why?	4	[1]	[1]
(b) Write down the essential properties of first-class brick.	6	[1]	[1]
(c) Define concrete and discuss its advantages in construction work	5	[1]	[1]
5(a) Describe the objectives of transportation engineering.	4	[1]	[1]
(b) State briefly the job responsibilities of a transportation engineer.	5	[1]	[1]
(c) Which mode of transportation do you think suitable for a country like Bangladesh? Justify your answer.	6	[2]	[1]
6(a) Discuss the scope and purpose of BNBC.	5	[1]	[1]
(b) Why is specification crucial for building materials?	6	[1]	[1]
(c) What do you understand by code of ethics?	4	[2]	[1]