



MERI College of Engineering & Technology (MERI-CET)

Session: 2020-2021
 Department: Civil Engineering
 Subject: ACS, PEC-CEEL-308-G

Course: B. Tech.
 Semester: 6th
 Faculty name: Er. Amit Kaushik

Name of the Faculty : Er. Amit Kaushik

Discipline : Civil Engineering

Semester : 6TH

Subject : ACS (PEC-CEEL-308-G)

Lesson Plan Duration : 15 Weeks (From JUNE- SEPT 2021)

Work load (Lectures/Practical)

Per week (in hours) : Lectures-04

| WEEK | LECTURE | TOPIC COVERED / ASSIGNMENT GIVEN |
|------------------|-----------------|---|
| 01 st | 1 st | General Overview of Subject |
| | 2 nd | Continuous Beams-Basic assumptions, Moment of inertia. |
| | 3 rd | Settlements, Modification of moments, maximum moments and shear |
| | 4 th | Design examples |
| 02 nd | 1 st | Beams curved in plan-analysis for torsion |
| | 2 nd | Redistribution of moments for single and multi-span beams, design examples. |
| | 3 rd | Redistribution of moments for multi-span beams |
| | 4 th | Design examples |
| 03 rd | 1 st | Flat slabs-Advantages of flat slabs, general design considerations |
| | 2 nd | Approximate direct design method |
| | 3 rd | Approximate direct design method- design of flat slabs |
| | 4 th | Openings in flat slab |
| 04 th | 1 st | Doubt Session & Quick revision |
| | 2 nd | |
| | 3 rd | Assignment - 1 |
| | 4 th | Staircases |
| 05 th | 1 st | Various Types of Staircases |
| | 2 nd | Design of various types of staircases |
| | 3 rd | Design examples |
| | 4 th | Solving Assignment & Doubts |
| 06 th | 1 st | Assignment -2 |
| | 2 nd | Design Concepts of Liquid Retaining Structures |

Session: 2020-2021
Department: Civil Engineering
Subject: ACS, PEC-CEEL-308-G

Course: B. Tech.
Semester: 6th
Faculty name: Er. Amit Kaushik

| | | |
|------------------|-----------------|---|
| | 3 rd | Water Tanks -Estimation of Wind and earthquake forces |
| | 4 th | Design requirements for rectangular tank |
| 07 th | 1 st | Design examples |
| | 2 nd | Design requirements for cylindrical underground tanks |
| | 3 rd | Design examples |
| | 4 th | Design requirements for Overhead tanks |
| 08 th | 1 st | Design examples |
| | 2 nd | Silos and Bunkers-Variou theories |
| | 3 rd | Bunkers with sloping bottoms and with high sidewalls, battery of bunkers, design examples |
| | 4 th | Design examples |
| 9 th | 1 st | Analysis and design of sections for flexure and shear |
| | 2 nd | Load balancing concept, IS Specifications. |
| | 3 rd | End blocks-Analysis of stresses, Magnel's method, |
| | 4 th | Guyon's method, Bursting and spalling stresses, |
| 10 th | 1 st | Design examples |
| | 2 nd | Building Frames-Introduction, Member stiffnesses, |
| | 3 rd | , Loads, Analysis for vertical and lateral loads, |
| | 4 th | Design examples |
| 11 th | 1 st | Torsion in buildings, Ductility of beams, |
| | 2 nd | Design and detailing for ductility, design examples. |
| | 3 rd | Yield Line Theory-Basic assumptions, Methods of analysis |
| | 4 th | Yield line patterns and failure mechanisms |
| 12 th | 1 st | Analysis of one way rectangular and non-rectangular slabs |
| | 2 nd | Analysis of two way rectangular and non-rectangular slabs |
| | 3 rd | Design examples |
| | 4 th | Effect of top corner steel in square slabs |
| 13 th | 1 st | Types of Joints, Joints in Multi-Storied Buildings, |
| | 2 nd | Forces Acting on Joints, Design of Joints for Strength |
| | 3 rd | Anchorage Requirement in Joints |
| | 4 th | Detailing of Reinforcement in Joints. |
| 14 th | 1 st | Examples |
| | 2 nd | Revision and doubt classes |
| | 3 rd | |
| | 4 th | |
| 15 th | 1 st | Revision and doubt classes |
| | 2 nd | |



**MERI College of Engineering & Technology
(MERI-CET)**

**Session: 2020-2021
Department: Civil Engineering
Subject: ACS, PEC-CEEL-308-G**

**Course: B. Tech.
Semester: 6th
Faculty name: Er. Amit Kaushik**

| | | |
|--|-----------------|--|
| | 3 rd | |
| | 4 th | |