

Discipline - Civil Engg.  
 Subject - Geotechnical Engg.  
 Weekly

Semester - 3<sup>rd</sup>  
 No. of days/week - 4  
 Class allotted - 4  
 Class days

Name of the teaching faculty - Saroj Bisoyi  
 Semester from -

Page.....

Theory / practical topics

27/09/21 to 2/10/21  
 1<sup>st</sup> to 4<sup>th</sup>  
 ← Grand W Jayanti →

4/10/21 to 9/10/21  
 1<sup>st</sup> to 4<sup>th</sup>  
 Introduction - Soil & Soil Engg  
 scope of Mechanics, origin & formation  
 Soil as 3 phase system  
 water content, Density, specific gravity

11/10/21 to 16/10/21  
 1<sup>st</sup> to 4<sup>th</sup>  
 ↑  
 ← Durga Puja Festival →

18/10/21 to 23/10/21  
 1<sup>st</sup> to 4<sup>th</sup>  
 ↓  
 Void ratio, porosity etc.  
 ← Kuman Purnima →  
 Inten relationship bet various soil parameters

25/10/21 to 30/10/21  
 1<sup>st</sup> to 4<sup>th</sup>  
 Index Property - w/c, specific gravity  
 particle size distribution, sieve analysis etc.  
 Consistency of soil, attenberg's limit  
 Classification of soil

01/11/21 to 06/11/21  
 1<sup>st</sup> to 4<sup>th</sup>  
 General  
 Is classification  
 plasticity chart  
 Concept of permeability.

Weeks	classdays	Theory/practical topics
08/11/21	1st	Factors affecting permeability
to	2nd	Constant & falling head permeability test
13/11/21	3rd	Seepage pressure, Effective stress
	4th	Phenomenon of Quick Sand
	1st	← Last Monday of Kartika →
15/11/21	2nd	(Compaction - Test - Light & heavy)
to	3rd	Factors affecting compaction
20/11/21	4th	Field Compaction methods
	1st	Consolidation & Compaction distinction
22/11/21	2nd	Tenzaghi's Model analogy
to	3rd	Process of Consolidation
27/11/21	4th	← Prathamastham →
	1st	Concept of Shear strength
29/11/21	2nd	Mohr + Coulomb failure theory
to	3rd	Strength envelope for different type of soil
4/12/21	4th	Measurement of Shear strength
	1st	Active earth & passive earth pressure
06/12/21	2nd	Earth pressure at rest
to	3rd	Use of Rankine's Formula (Cohesion less soil)
11/12/21	4th	Backfill with no surcharge
	1st	Backfill with surcharge
13/12/21	2nd	Foundation - Function of foundation
to	3rd	shallow & deep foundation
18/12/21	4th	Different types of shallow & Deep foundation

Weeks	classdays	Theory/practical topics
20/12/21	1st	Type of failure (Local, shear, punching)
to	2nd	Bearing capacity of soil
25/12/21	3rd	Tenzaghi's Formula
	4th	← X Mas Day →
	1st	IS Code formula for strip
27/12/21	2nd	Circular & square footings
to	3rd	Use of circular & square footing
01/01/22	4th	← New year →
	1st	Effect of water Table
03/01/22	2nd	Effect of water table on bearing
to	3rd	standard penetration test capacity of soil
08/01/22	4th	plate load test