

Discipline :- Civil Engg.	Semester :- 6th	Name of the teaching faculty <b>TH-1</b> Er. Sibani Dash.
Subject :- Concrete Technology (Electives)	NO. of days/Per Week class allotted :- 06	Semester form :- 05.04.21 - 30.06.21 NO. of Weeks :- 12 Weeks
Weeks	Class Days	Theory/Practical Topics
	1st	Grades of concrete, Concrete
05/04/2021	2nd	Adv. & Dis adv. of concrete
to	3rd	Cement, composition, hydration
10/04/2021	4th	w/c ratio, types of cement
	5th	Compressive strength, fineness of <sup>Cement</sup>
	6th	Setting time, Soundness of cement.
	1st	Agg. classification, char. characteristics
12/04/2021	2nd	fineness modulus & grading of agg
to	3rd	- Maha Visuba Sankranti -
17/04/2021	4th	Agg. grading as per IS 383
	5th	Quality of water for mixing & <sup>curring</sup>
	6th	Admixture, function, classification
	1st	IS-9103, Type of admixture
19/04/2021	2nd	Fresh conc. Workability,
to	3rd	-> Ram Navami -
24/04/2021	4th	Slump test, compaction factor test
	5th	V-bee consistency test
	6th	flow test,
	1st	Requirement of workability
26/04/2021	2nd	IS 1199
to	3rd	Compressive strength of harden <sup>Conc.</sup>
01/05/2021	4th	cube & cylinders. comp. strength
	5th	Flexural strength of conc.
	6th	Stress-Strain & elastic phenomena



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Weeks	Class Days	Theory / Practical Topics
03/05/2021 to 08/05/2021	1st 2nd 3rd 4th 5th 6th	Creep, Shrinkage, Permeability, Durability, Sulphate, chloride & acid attack on conc. efflorescence mix design & its types Data required for mix design.
10/05/2021 to 15/05/2021	1st 2nd 3rd 4th 5th 6th	Nominal mix concrete. Design mix concrete Basic consideration for conc. mix. Method of Proportioning conc. mix <b>Id - Ul - Zuba</b> Code method of mix design (I.S 10262)
17/05/2021 to 22/05/2021	1st 2nd 3rd 4th 5th 6th	Batching of materials, mixing Mixing of conc. material, Transportation Placing of concrete Compaction of conc., curing of conc. formwork - requirements & types.
24/05/2021 to 29/05/2021	1st 2nd 3rd 4th 5th 6th	Stripping of formwork Quality control of concrete IS 456 Factors causing the variation of <sup>conc.</sup> of Mixing, Transportation of conc. Placing & Curing of concrete as per IS <del>45</del> 456



Weeks	Class Days	Theory / Practical Topics
	1st	Inspection and Testing as per IS-456
31/05/2021	2nd	Durability requirements of conc
to	3rd	Special concrete, ready mix concrete
05/06/2021	4th	High Performance concrete
	5th	Silica fume concrete,
	6th	Shotcrete concrete or gunnetting.
	1st	Necessity of special conc. and other types
07/06/2021	2nd	Deterioration of conc. introduction
to	3rd	Types of deterioration
12/06/2021	4th	— Sabitri Amabasya —
	5th	Prevention of conc. deterioration
	6th	Corrosion of reinforcement
	1st	Effect & Prevent of corrosion
14/06/2021	2nd	— Raja Sankaranti —
to	3rd	Effect & Prevention of reinforcement <sup>Corrosion</sup>
19/06/2021	4th	Failure of concrete & Symptom
	5th	defects occurring during construction
	6th	Cause of defects during construction
	1st	Prevention & Remedy of defects
20/06/2021	2nd	Cracking of concrete & its effects
to	3rd	Reason behind cracking & its effects
26/06/2021	4th	Repair of cracking for different <sup>Purpose</sup>
	5th	Different Repair Techniques
	6th	Types of Repair Techniques Polymer based repairs.



Weeks	Class Days	Theory / Practical Topics
28/05/2021	1st	All other types of repairs
to	2nd	Discuss all other necessary points in
30/06/2021	3rd	Material specification as per.
		IS - 388, 10262 & 9103.

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 05/04/2021

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