

TEACHING-CUM-LESSON PLAN

- 1) Subject Code Th-1
2) Subject Title: Land survey-ii
3) Semester:6th
4) Branch: Civil engg
5) No. of Classes / Week: 5
6) Pre Requisite for the Subject: NIL / YES, If YES,
i) Basic of physics and mathematics up to 12th standard and familiarity with use of computer.
ii) Basic knowledge about Land survey courses.
7) Text Book to be referred by students:

Sl No.	Book	Author	Publication	Year (Edition)	Whether available in Library
i	A text book of surveying and leveling	R. Agor	Khanna Publishers, Delhi6	9th	YES
ii	Surveying and Levelling	N.N Basak	Tata Mcgraw Hil	7th	YES
iii	Advanced Surveying	D. Gaikwad	S.Chand		NO

8) Course Coverage Schedule:

Sl No.	Week No.	Ch. No	No. of classes planed	Topic to be covered	Article		Expected Date of Completion	Remark
					From	To		
i	1	1	5	TACHEOMETRY	1.1	1.2		
	2	1	2	TACHEOMETRY	1.3	1.3,1001	28.03.22	
ii		2	3	CURVES	2.1	2.3		
iii	3	2	2	CURVES	2.4	2.5,1002	06.04.22	
iv		3	3	BASICS ON SCALE AND BASICS OF MAP	3.1	3.4		
v	4	3	2	BASICS ON SCALE AND BASICS OF MAP	3.4	3.5.7,1003	14.04.22	
vi		4	3	SURVEY OF INDIA MAP SERIES	4.1	4.2		
	5	4	4	SURVEY OF INDIA MAP SERIES	4.2	4.3.7,1004	26.04.22	
vii		5	1	BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE	5.1	5.1		

				GENERATION				
viii	6	5	5	BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE GENERATION	5.2	5.4		
ix	7	5	1	BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE GENERATION	5.5	5.5,1005	04.05.22	
x		6	4	MODERN SURVEYING METHODS	6.1	6.1		
xi	8	6	3	MODERN SURVEYING METHODS	6.2	6.2,1006	18.05.22	
xiv		7	2	BASICS ON GPS & DGPS AND ETS	7.1	7.2		
xv	9	7	4	BASICS ON GPS & DGPS AND ETS	7.2	7.3.6,1007	26.05.22	
xvi		8	1	BASICS OF GIS AND MAP PREPARATION USING GIS	8.1	8.3		
xvii	10	8	5	BASICS OF GIS AND MAP PREPARATION USING GIS	8.4	8.12,1008	03.06.22	
Total:		7	50					

9) **Detail Class wise Plan:**

Detailed Topic Plan:

Chapter No: 1 Chapter Name: TACHEOMETRY:

(Only concepts; applications without derivation) 1.1 Principles, stadia constants determination 1.2 Stadia tacheometry with staff held vertical and with line of collimation horizontal or inclined, numerical problems 1.3 Elevations and distances of staff stations – numerical problems

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	1	1	Principles, stadia constants determination	1.1		
2		2	Stadia tacheometry with staff held vertical and with line of collimation horizontal or inclined, numerical problems	1.2		
3		3	Stadia tacheometry with staff held vertical and with line of collimation horizontal or inclined, numerical problems	1.2		
4		4	Stadia tacheometry with staff held vertical and with line of collimation horizontal or inclined, numerical	1.2		

			problems			
5	2	5	Elevations and distances of staff stations – numerical problems	1.3		
6		6	Elevations and distances of staff stations – numerical problems	1.3		
7		7	Doubt clear and revision of topics	1001		

REVIEW

Detailed Topic Plan:

Chapter No: 2 Chapter Name: CURVES

2.1 compound, reverse and transition curve, Purpose & use of different types of curves in field 2.2 Elements of circular curves, numerical problems 2.3 Preparation of curve table for setting out 2.4 Setting out of circular curve by chain and tape and by instrument angular methods (i) offsets from long chord, (ii) successive bisection of arc, (iii) offsets from tangents, (iv) offsets from chord produced, (v) Rankine's method of tangent angles (No derivation) 2.5 Obstacles in curve ranging – point of intersection inaccessible.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1		8	compound, reverse and transition curve, Purpose & use of different types of curves in field	2.1		
2		9	Elements of circular curves, numerical problems. Preparation of curve table for setting out.	2.2 2.3		
3		10	Setting out of circular curve by chain and tape and by instrument angular methods (i) offsets from long chord, (ii) successive bisection of arc, (iii) offsets from tangents,	2.4		
4		11	(iv) offsets from chord produced, (v) Rankine's method of tangent angles (No derivation) Obstacles in curve ranging – point of intersection inaccessible.	2.4 2.5		
5		12	Doubt clear and revision of topics	1002		

REVIEW

Detailed Topic Plan:

Chapter No: 3 Chapter Name: BASICS ON SCALE AND BASICS OF MAP:

3.1 Fractional or Ratio Scale, Linear Scale, Graphical Scale 3.2 What is Map, Map Scale and Map Projections 3.3 How Maps Convey Location and Extent 3.4 How Maps Convey characteristics of features 3.5 How Maps Convey Spatial Relationship 3.5.1 Classification of Maps 3.5.1 Physical Map 3.5.2 Topographic Map 3.5.3 Road Map 3.5.4 Political Map 3.5.5 Economic & Resources Map 3.5.6 Thematic Map 3.5.7 Climate Map

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	4	13	Fractional or Ratio Scale, Linear Scale, Graphical Scale. What is Map, Map Scale and Map Projections	3.1 3.2		
2		14	How Maps Convey Location and Extent. How Maps Convey characteristics of features.	3.3 3.4		
3		15	How Maps Convey Spatial Relationship. i) Classification of Maps ii) Topographic Map	3.5 3.5.1 3.5.2		
4		16	iii) Road Map iv) Political Map v) Economic & Resources Map vi) Thematic Map vii) Climate Map	3.5.3 3.5.4 3.5.5 3.5.6		
5		17	Doubt clear and revision of topics	1003		

REVIEW

Detailed Topic Plan:

Chapter No: 4 Chapter Name: SURVEY OF INDIA MAP SERIES:

4.1 Open Series map 4.2 Defense Series Map 4.3 Map Nomenclature 4.3.1 Quadrangle Name 4.3.2 Latitude, Longitude, UTM's 4.3.3 Contour Lines 4.3.4 Magnetic Declination 4.3.5 Public Land Survey System 4.3.6 Field Notes

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	5	18	Open Series map. Defense Series Map.	4.1 4.2		
2		19	Map Nomenclature. Quadrangle Name	4.3 4.3.1		
3		20	Latitude, Longitude, UTM's Contour Lines	4.3.2 4.3.3		
4		21	Magnetic Declination	4.3.4		
5		22	Public Land Survey System	4.3.5		
6		23	Field Notes	4.3.6		
7		24	Doubt clear and revision of topics	1004		

REVIEW

Detailed Topic Plan:

Chapter No: 5 Chapter Name: BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE GENERATION:

5.1 Aerial Photography: 5.1.1 Film, Focal Length, Scale 5.1.2 Types of Aerial Photographs (Oblique, Straight) 5.2 Photogrammetry: 5.2.1 Classification of Photogrammetry 5.2.2 Aerial Photogrammetry 5.2.3 Terrestrial Photogrammetry 5.3 Photogrammetry Process: 5.3.1 Acquisition of Imagery using aerial and satellite platform 5.3.2 Control Survey 5.3.3 Geometric Distortion in Imagery Application of Imagery and its support data Orientation and Triangulation Stereoscopic Measurement 5.4 DTM/DEM Generation 5.5 Ortho Image Generation.

Sl	Week	Lecture	Topic to be Covered	Article	Date of	Signature
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No.	No.	No.		No.	Completion	
1		25	Aerial Photography. F Im, Focal Length, Scale	5.1 5.1.1		
2	6	26	Types of Aerial Photographs (Oblique, Straight). Photogrammetry. Classification of Photogrammetry. Aerial Photogrammetry. Terrestrial Photogrammetry.	5.1.2 5.2 5.2.1 5.2.2 5.2.3		
3		27	Photogrammetry Process. Acquisition of Imagery using aerial and satellite platform. Control Survey	5.3 5.3.1 5.3.2		
4		28	Geometric Distortion in Imagery Application of Imagery and its support data Orientation and Triangulation Stereoscopic Measurement 19.9.1 X-parallax 19.2.2 Y-parallax	5.3.3		
5		29	DTM/DEM Generation	5.4		
6		30	Ortho Image Generation.	5.5		
7	7	31	Doubt clear and revision of topics	1005		

REVIEW

Detailed Topic Plan:

Chapter No: 6 Chapter Name: MODERN SURVEYING METHODS

6.1 Principles, features and use of (i) Micro-optic theodolite, digital theodolite 6.2 Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1		32	Principles, features and use of (i) Micro-optic theodolite, digital theodolite	6.1		
2		33	Principles, features and use of (i) Micro-optic theodolite, digital theodolite	6.1		
3	8	34	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	6.2		
4		35	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and	6.2		

			the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.			
5		36	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	6.2		
6		37	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	6.2		
7		38	Doubt clear and revision of topics	1006		

REVIEW

Detailed Topic Plan:

Chapter No: 7 Chapter Name: BASICS ON GPS & DGPS AND ETS:

7.1 GPS: - Global Positioning 7.1.1 Working Principle of GPS, GPS Signals, 7.1.2 Errors of GPS, Positioning Methods 7.2 DGPS: - Differential Global Positioning System 7.2.1 Base Station Setup 7.2.2 Rover GPS Set up 7.2.3 Download, Post-Process and Export GPS data 7.2.4 Sequence to download GPS data from flashcards 7.2.5 Sequence to Post-Process GPS data 7.2.6 Sequence to export post process GPS data 7.2.7 Sequence to export GPS Time tags to file 7.3 ETS: - Electronic Total Station 7.3.1 Distance Measurement 7.3.2 Angle Measurement 7.3.3 Leveling 7.3.4 Determining position 7.3.5 Reference networks 7.3.6 Errors and Accuracy.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	9	39	GPS: - Global Positioning. Working Principle of GPS, GPS Signals, Errors of GPS, Positioning Methods	7.1 7.1.1 7.1.2		
2		40	DGPS: - Differential Global Positioning System. Base Station Setup. Rover GPS Set up.	7.2 7.2.1 7.2.2		
3		41	Download, Post-Process and Export GPS data. Sequence to download GPS data from flashcards.	7.2.3 7.2.4 7.2.5		
4		42	Sequence to export post process GPS data.	7.2.6 7.2.7		

		Sequence to export GPS Time tags to file. ETS: - Electronic Total Station.	7.3		
5	43	Distance Measurement. Angle Measurement. Leveling. Determining position. Reference networks. Errors and Accuracy.	7.3.1 7.3.2 7.3.3 7.3.4 7.3.5 7.3.6		
6	44	Doubt clear and revision of topics	1007		

REVIEW

Detailed Topic Plan:

Chapter No: 8 Chapter Name: BASICS OF GIS AND MAP PREPARATION USING GIS

8.1 Components of GIS. Integration of Spatial and Attribute Information 8.2 Three Views of Information System 8.2.1 Database or Table View, Map View and Model View 8.3 Spatial Data Model 8.4 Attribute Data Management and Metadata Concept 8.5 Prepare data and adding to Arc Map. 8.6 Organizing data as layers. 8.7 Editing the layers. 8.8 Switching to Layout View. 8.9 Change page orientation. 8.10 Removing Borders. 8.11 Adding and editing map information. 8.12 Finalize the map.

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	10	45	Components of GIS, Integration of Spatial and Attribute Information. Three Views of Information System.	8.1 8.2		
2		46	Database or Table View. Map View and Model View. Spatial Data Model.	8.2.1 8.3		
3		47	Attribute Data Management and Metadata Concept. Prepare data and adding to Arc Map.	8.4 8.5		
4		48	Organizing data as layers. Editing the layers. Switching to Layout View.	8.6 8.7 8.8		
5		49	Change page orientation. Removing Borders. Adding and editing map information. Finalize the map.	8.9 8.10 8.11 8.12		
6		50	Doubt clear and revision of topics	1008		

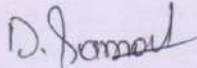
REVIEW

10) Examination Schedule

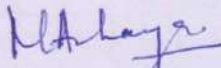
SI No.	Particulars of Test	Schedule	Type
1	Weekly Test (2 nd Week onwards)	Wednesday (4 th Sem.) & Thursday (6 th sem.)	10 Short Questions (02 Marks):
2	Internal Exam.-1	4 th Week	30 Marks (Long Questions)
3	Internal Exam.-2	8 th Week	30 Marks (Long Questions)

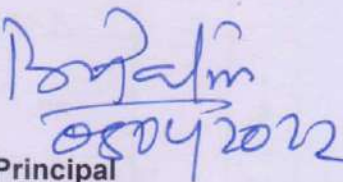
11) Assignment Collection/ Evaluation:

SI No.	Assignment No.	Content	Schedule
1	Assignment-1	Long Questions 7 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	3 rd Week
2	Assignment-2	Long Questions 8 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	6 th Week
3	Assignment-3	Long Questions 11 Nos.(10 Marks) Short Questions 8 Nos. (5 Marks)	9 th Week
4	Assignment-4	VST 100 Marks	10 th /11 th Week


Signature of Faculty

Signature of Asst. HOD


Signature of HOD


Principal

TEACHING-CUM-LESSON PLAN

- 1) Subject Code: Th 2.
- 2) Subject Title: Construction Management
- 3) Semester: 6th
- 4) Branch: Civil Engg.
- 5) No. of Classes / Week: 5
- 6) Pre Requisite for the Subject: NIL / YES, If YES, give details: YES

- Basic knowledge of construction quality indicators and their measurement
- Basic knowledge of materials management, site management, equipment management and labor management
- Basic knowledge of importance and usage of the Vulnerability Atlas of India in construction Projects.
- Basic knowledge of safety requirement and regulations at workplace

7) Text Book to be referred by students:

Sl No.	Book	Author	Publication	Year (Edition)	Whether available in Library
i	Construction planning and management	PS Gahlot & B M Dhir	New age international Publishers	4 th	Yes

8) Course Coverage Schedule:

Sl No.	Week No.	Ch. No	No. of classes planned	Topic to be covered	Article		Expected Date of Completion	Remark
					From	To		
i	1	1	4	Introduction To Construction Management	1.1	1.4,1001	25.03.22	
		2	1	Constructional Planning	2.1	2.3		
ii	2	2	5		2.4	2.7,1002	04.04.22	
iii	3	3	3	Materials and Stores Management	3.1	3.2,1003	07.04.22	
		4	2	Construction Site Management	4.1	4.2		
iv	4	4	2		4.3	4.4,1004	13.04.22	
		5	3	Construction Organisation	5.1	5.3		
v	5	5	3		5.4	5.6,1005	23.04.22	
		6	2	Construction Labour and Labour Management	6.1	6.2		

vi	6	6	3	Construction Labour and Labour Management	6.3	6.6,1006	30.04.22	
		7	2	Equipment Management	7.1	7.2		
vii	7	7	3	Equipment Management	7.3	7.5,1007	06.05.22	
		8	2	Quality Control	8.1	8.2		
viii	8	8	1		8.2	1008	11.05.22	
		9	4	Monitoring Progress	9.1	9.3,1009	20.05.22	
ix	9	10	5	Safety Management In Construction	10.1	10.5,1010	27.05.22	
x	10	11	5	Role of Vulnerability Atlas of India in construction projects	11.1,	11.6,1011	03.06.22	
Total:		11	50					

9) **Detail Class wise Plan:**

Detailed Topic Plan:

Chapter No: 01 Chapter Name: Introduction To Construction Management

1.1 Aims and objectives of construction management. 1.2 Functions of construction management. 1.3 The construction team components owner,engineer,architect,contractor-their functions and interrelationship and jurisdiction. 1.4 Resources for construction management-men,machines,materials,money

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	1	1	Aims and objectives of construction management Function of construction management are- Planning and scheduling, organizing , staffing , directing , controlling , coordinating	1.1, 1.2		
2.		2	The construction team components :- owner, engineer , architect , contractor their functions and jurisdiction	1.3		
3.		3	Resources for construction Materials , manpower , machinery (plant/equipment) funds, space	1.4		
4		4	Doubt clear and revision of topics	1001		
REVIEW						

Detailed Topic Plan:

Chapter No: 02 Chapter Name: Constructional Planning

2.1 Importance of Construction Planning 2.2 Developing work breakdown structure for construction work 2.3 Construction Planning stages-Pre-tender stage, Post-tender stage. 2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works. 2.5 Preparation of schedules for labour materials,machinery, finance for small works 2.6 Limitation of Bar charts 2.7 Construction scheduling by network techniques-definition of terms ,PERT and CPM techniques, advantages and disadvantages of two techniques, network analysis, estimation of time and critical path, application of PERT and CPM techniques in sample construction works.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	1.	5	Importance of construction planning Developing work breakdown structure for construction work Construction Planning stages i) pre-tender stage ii) post-tender stage	2.1, 2.2, 2.3		
2.	2.	6	Construction scheduling by Bar charts for simple construction works Preparation of schedule for materials, labours for small works	2.4 2.5		
3.		7	Limitation of bar charts	2.6		
4.		8	Construction scheduling by network technique Definition of terms PERT, CPM techniques Earliest event time Latest event time Forward pass Earliest start time and earliest finish time Estimation of time and critical path	2.7		
5.		9	Application of PERT and CPM techniques in sample construction works Latest finish time and latest start time Advantages & Disadvantages of technique Network analysis	2.7		
6.		10	Doubt clear and revision of topics	1002		
REVIEW						

Detailed Topic Plan:

Chapter No: 03 Chapter Name: Materials and Stores Management

3.1 Classification of Stores-storage of stock. 3.2 Issue of materials-indent, invoice, bin card

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	3	11	Classification of stores and storage of stocks	3.1		
2.		12	Issue of materials, indent, invoice, bin card	3.2		
3.		13	Doubt clear and revision of topics	1003		
REVIEW						

Detailed Topic Plan:

Chapter No: 04 Chapter Name: Construction Site Management

4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments. 4.2 Location of equipment, organizing labour at site. 4.3 Job lay out for different construction sites. 4.4 Principle of storing material at site.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
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1.	3.	14	Job Lay out-Objectives, Review plans, specifications, Lay out of equipments.	4.1		
2.		15	Location of equipment, organizing labour at site Job Layout for Different Construction sites	4.2 4.3		
3.	4.	16	Principles of storing material at site	4.4		
4.		17	Doubt clear and revision of topics	1004		
REVIEW						

Detailed Topic Plan:

Chapter No: 05 Chapter Name: Construction Organization

5.1 Introduction – Characteristics, Structure, importance. 5.2 Organization types-line and staff, functions and their characteristics 5.3 Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task. 5.4 Leadership-necessity, styles of leadership, role of leader 5.5 Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare. 5.6 Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	4.	18	Introduction – Characteristics, Structure, importance. Organization types- Line and staff, Function and their characteristics Merits and demerits of line and Staff organization	5.1, 5.2		
2.		19	Principles of organization- meaning and significance of terms- control, authority, responsibility, job & task.	5.3		
3.		20	Leadership Necessity of Leadership Leadership style Role of a leader	5.4		
4.	5.	21	Human relations- Relation with subordinates, peers, supervisors, characteristics of group behavior, mob psychology, handling of grievances, absenteeism, labour welfare	5.5		
5.		22	Conflicts in organization-genesis of conflicts, types-intrapersonal, interpersonal, intergroup, resolving conflicts. conflict management	5.6		
6.		23	Doubt clear and revision of topics	1005		

REVIEW

Detailed Topic Plan:**Chapter No: 06 Chapter Name: Construction Labour and Labour Management**

6.1 Preparing Labour schedule 6.2 Essential steps for optimum labour output 6.3 Labour characteristics 6.4 Wages & their payment 6.5 Labour incentives 6.6 Motivation- Classification of motives, different approaches to motivation.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	5.	24	Preparing labour schedule Essential steps for optimum Labour output	6.1, 6.2		
2.		25	Labour characteristics	6.3		
3.	6.	26	Wages and their payment Labour incentives	6.4, 6.5		
4.		27	Meaning of Motivation Classification of Motives Different Approaches to Motivation	6.6		
5.		28	Doubt clear and revision of topics	1006		

REVIEW**Detailed Topic Plan:****Chapter No: 07 Chapter Name: Equipment Management**

7.1 Preparing the equipment schedule 7.2 Identification of different alternative equipment 7.3 Importance of Owning & operating costs in making decisions for hiring & purchase of equipment 7.4 Inspection and testing of equipment 7.5 Equipment maintenance

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	6.	29	Preparing the equipment schedule	7.1		
2.		30	Identification of different alternative equipment Owning and operating cost in making decisions for hiring & purchase of equipment	7.2, 7.3		
3.	7.	31	maintenance and repairs operating cost Inspection of testing equipment	7.3, 7.4		
4.		32	Equipment maintenance and minor repair	7.5		
5.		33	Doubt clear and revision of topics	1007		

REVIEW

Detailed Topic Plan:**Chapter No: 08 Chapter Name: Quality Control**

8.1 Concept of quality in construction 8.2 Quality Standards- during construction, after construction, destructive & non destructive methods.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	7.	34	Concept of quality construction, Quality Standards- during construction,	8.1, 8.2		
2.		35	Quality Standards - after construction, destructive & non destructive methods.	8.2		
3.	8.	36	Doubt clear and revision of topics	1008		

REVIEW**Detailed Topic Plan:****Chapter No: 09 Chapter Name: Monitoring Progress**

9.1 Programme and progress of work 9.2 Work study 9.3 Analysis and control of physical and financial progress corrective measures

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	8.	37	9.1 Programme and progress of work	9.1		
2.		38	9.2 Work study	9.2		
3.		39	9.3 Analysis and control of physical and financial progress corrective measures.	9.3		
4.		40	Doubt clear and revision of topics	1009		

REVIEW**Detailed Topic Plan:****Chapter No: 10 Chapter Name: Safety Management In Construction**

10.1 Importance of safety 10.2 causes and effects of accidents in construction works 10.3 Safety measures in worksites for excavation, scaffolding, formwork, fabrication and erection, demolition. 10.4 Development of safety consciousness 10.5 Safety legislation- Workman's compensation act, contract labour act.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	9.	41	Importance of safety	10.1		
2.		42	causes and effects of accidents in construction works	10.2		

3.	43	Safety measures:- Safety measures for excavation Safety measure for scaffolding, form work and other equipment Safety in fabrication and erection, demolition	10.3		
4.	44	Development of safety consciousness Safety legislation- Workman's compensation act, contract labour act.	10.4, 10.5		
5.	45	Doubt clear and revision of topics	1010		
REVIEW					

Detailed Topic Plan:

Chapter No: 11 Chapter Name: Role of Vulnerability Atlas of India in construction projects

11.1 Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India. Definition of disaster related terms. 11.2 Earthquake hazard and vulnerability, Magnitude and intensity scales of earthquake, seismic zones, earthquake hazard maps, types of structures and damage classification, effects in housing and resistant measures. 11.3 Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures. 11.4 Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction. 11.5 Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards. 11.6 Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender documents.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1.	10.	46	Introduction to Vulnerability Atlas of India, Concepts of natural hazards and disasters and vulnerability profile of India. Definition of disaster related terms	11.1		
2.		47	Earthquake hazard and vulnerability, Magnitude and intensity scales of earthquake, seismic zones, earthquake hazard maps, types of structures and damage classification, effects in housing and resistant measures. Wind / Cyclone hazard and vulnerability, wind speed and pressures, wind hazard and cyclone occurrence maps, storm surveys and cyclone resistant measures	11.2, 11.3		
3.		48	Flood hazard and vulnerability, Flood hazard and Flood prone areas of the country, General protection of habitants and flood resistant construction.	11.4		
4.		49	Landslides, Tsunamis and Thunderstorm hazards and vulnerability, Landslide & Thunderstorm incidence maps, Measures against Tsunami hazards.	11.5		
5.		50	Housing vulnerability risk tables and usage of vulnerability atlas of India, Inclusion of vulnerability atlas in Tender	11.6, 1011		

			documents.			
			Doubt clear and revision of topics			
REVIEW						

10) Examination Schedule:

Sl No.	Particulars of Test	Schedule	Type
1	Weekly Test (2 nd Week onwards)	Wednesday (4 th Sem.) & Thursday (6 th sem.)	10 Short Questions (02 Marks):
2	Internal Exam.-1	4 th Week	30 Marks (Long Questions)
3	Internal Exam.-2	8 th Week	30 Marks (Long Questions)

11) Assignment Collection/ Evaluation:

Sl No.	Assignment No.	Content	Schedule
1	Assignment-1	Long Questions 7 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	3 rd Week
2	Assignment-2	Long Questions 8 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	6 th Week
3	Assignment-3	Long Questions 11 Nos.(10 Marks) Short Questions 8 Nos. (5 Marks)	9 th Week
4	Assignment-4	VST 100 Marks	10 th /11 th Week

M. Biswas
Signature of Faculty

Signature of Asst. HOD

H. H. H.
Signature of HOD

P. P. P.
Principal
08/04/2022

TEACHING-CUM-LESSON PLAN

- 1) Subject Code: Th-3
- 2) Subject Title: ACT
- 3) Semester: 6th
- 4) Branch: Civil
- 5) No. of Classes / Week: 4
- 6) Pre Requisite for the Subject: NIL / YES, If YES, give details:

i) Basic knowledge about building construction technology.

ii) Basic knowledge about construction technique use in site of construction.

- 7) Text Book to be referred by students:

Sl No.	Book	Author	Publication	Year (Edition)	Whether available in Library
i	Earthquake resistant design of structures	s.k duggal	oxford	4th	yes
ii	Advance construction and Equipments	M.R. Samal	Platinum publisher		NO

- 8) Course Coverage Schedule:

Sl No.	Week No.	Ch. No	No. of classes planned	Topic to be covered	Article		Expected Date of Completion	Remark
					From	To		
i	1	1	04	Advanced construction materials	1.1	1.2		
ii	2	1	02	Advanced construction materials	1.2	1.3, 1001	28.03.22	
iii		2	02	Prefabrication	2.1	2.1		
iv	3	2	04	Prefabrication	2.2	2.2		
v	4	2	01	Prefabrication	2.3	2.3, 1002	12.04.22	
vi		3	03	Earthquake Resistant Construction	3.1	3.2, 3.3		
vii	5	3	03	Earthquake Resistant Construction	3.4, 3.5	3.6, 1003	26.04.22	
viii		4	01	Retrofitting of Structures	4.1	4.2		
ix	6	4	04	Retrofitting of Structures	4.3	4.3, 1004	03.05.22	
x	7	5	04	Building Services	5.1	5.2, 5.3		
xi	8	5	04	Building Services	5.4, 5.5, 5.6	5.7, 1005	20.05.22	

xii	9	6	04	Construction and earth moving equipments	6.1	6.2		
xiii	10	6	02	Construction and earth moving equipments	6.3	6.4,1006	30.05.22	
vii		7	02	Soil reinforcing techniques	7.1	7.3,1007	03.06.22	
Total:		07	40					

9) **Detail Class wise Plan:**

Detailed Topic Plan:

Chapter No: 01 **Chapter Name:** Introduction

1.1 Fibers and Plastics Types of fibers- Steel, Carbon, glass fibers, Use of fibers as construction material, properties of Fibers. Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets. Use of plastic as construction material. 1.2 Artificial Timbers – Properties and uses of artificial timber. Types of artificial timber available in market, strength of artificial timber. 1.3 Miscellaneous materials – Properties and uses of acoustics materials, wall claddings, plaster boards, micro-silica, artificial sand, bonding agents, adhesives etc.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	1	1	Fibers and Plastics Types of fibers- Steel, Carbon, glass fibers, Use of fibers as construction material, properties of Fibers. Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets. Use of plastic as construction material	1.1		
2		2	Fibers and Plastics Types of fibers- Steel, Carbon, glass fibers, Use of fibers as construction material, properties of Fibers. Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets. Use of plastic as construction material	1.1		
3		3	Artificial Timbers – Properties and uses of artificial timber. Types of artificial timber available in market, strength of artificial timber.	1.2		
4		4	Artificial Timbers – Properties and uses of artificial timber. Types of artificial timber available in market, strength of artificial timber.	1.2		
5		5	Miscellaneous materials – Properties and uses of acoustics materials, wall claddings, plaster boards, micro-silica, artificial sand, bonding agents, adhesives etc.	1.3		
6	2	6	Doubt Clear/Revision:	1001		

Review:

Detailed Topic Plan:**Chapter No: 02 Chapter Name: Prefabrication**

2.1 Introduction, necessity and scope of prefabrication of buildings, history of prefabrication, current uses of prefabrication, types of prefabricated systems, classification of prefabrication, advantages and disadvantages of prefabrication, 2.2 The theory and process of prefabrication, design principle of prefabricated systems, types of prefabricated elements, modular coordination 2.3 Indian standard recommendation for modular planning.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	2	7	Introduction, necessity and scope of prefabrication of buildings.	2.1		
2		8	History of prefabrication, current uses of prefabrication.	2.1		
3	3	9	The theory and process of prefabrication, design principle of prefabricated systems, types of prefabricated elements, modular coordination	2.2		
4		10	The theory and process of prefabrication, design principle of prefabricated systems, types of prefabricated elements, modular coordination	2.2		
5		11	Indian standard recommendation for modular planning.	2.3		
6		12	Indian standard recommendation for modular planning.	2.3		
7	4	13	Doubt Clear/Revision:	1002		

Review:

Detailed Topic Plan:**Chapter No: 03 Chapter Name: Earthquake Resistant Construction**

3.1 Building Configuration 3.2 Lateral Load resisting structures 3.3 Building characteristics 3.4 Effect of structural irregularities-vertical irregularities, plan configuration problems. 3.5 Safety consideration during additional construction and alteration of existing Buildings. 3.6 Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	4	14	Building Configuration Lateral Load resisting structures	3.1,3.2		
2		15	Building characteristics Effect of structural irregularities-vertical irregularities, plan configuration problems.	3.3,3.4		
3		16	Safety consideration during additional construction and alteration of existing Buildings.	3.5		

4	5	17	6 Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.	3.6		
5		18	6 Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.	3.6		
6		19	Doubt Clear/Revision:	1003		

Review:

Detailed Topic Plan:

Chapter No: 04 Chapter Name: Retrofitting of Structures

4.1 Seismic retrofitting of reinforced concrete buildings : 4.2 -Sources of weakness in RC frame building 4.3 -Classification of retrofitting techniques and their uses

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	6	20	4.1 Seismic retrofitting of reinforced concrete buildings :	4.1		
2		21	4.2 -Sources of weakness in RC frame building	4.2		
3		22	4.2 -Sources of weakness in RC frame building	4.2		
4		23	4.3 -Classification of retrofitting techniques and their uses	4.3		
5		24	Doubt Clear/Revision:	1004		

Review:

Detailed Topic Plan:

Chapter No: 05 Chapter Name: Building Services

5.1 Cold Water Distribution in high rise building, lay out of installation 5.2 Hot water supply – General principles for central plants-layout. 5.3 Sanitation –soil and waste water installation in high rise buildings 5.4 Electrical services – i) requirements in high rise buildings ii) Layout of wiring - types of wiring iii) Fuses and their types iv) Earthing and their uses 5.5 Lighting – Requirement of lighting, Measurement of light intensity 5.6 Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation) problems on ventilation 5.7 Mechanical Services- Lifts, Escalator, Elevators – types and uses

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	7	25	Cold Water Distribution in high rise building, lay out of installation Hot water supply – General principles for central plants-layout	5.1 5.2		
2		26	Sanitation –soil and waste water installation in high rise buildings	5.3		
3		27	Electrical services – i) requirements in	5.4		

4	5	17	6 Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.	3.6		
5		18	6 Additional strengthening measures in masonry building-corner reinforcement, Intel band, sill band, plinth band, roof band, gable band etc.	3.6		
6		19	Doubt Clear/Revision:	1003		

Review:

Detailed Topic Plan:

Chapter No: 04 Chapter Name: Retrofitting of Structures

4.1 Seismic retrofitting of reinforced concrete buildings : 4.2 -Sources of weakness in RC frame building 4.3 -Classification of retrofitting techniques and their uses

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	6	20	4.1 Seismic retrofitting of reinforced concrete buildings :	4.1		
2		21	4.2 -Sources of weakness in RC frame building	4.2		
3		22	4.2 -Sources of weakness in RC frame building	4.2		
4		23	4.3 -Classification of retrofitting techniques and their uses	4.3		
5		24	Doubt Clear/Revision:	1004		

Review:

Detailed Topic Plan:

Chapter No: 05 Chapter Name: Building Services

5.1 Cold Water Distribution in high rise building, lay out of installation 5.2 Hot water supply – General principles for central plants-layout. 5.3 Sanitation –soil and waste water installation in high rise buildings 5.4 Electrical services – i) requirements in high rise buildings ii) Layout of wiring - types of wiring iii) Fuses and their types iv) Earthing and their uses 5.5 Lighting – Requirement of lighting, Measurement of light intensity 5.6 Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation) problems on ventilation 5.7 Mechanical Services- Lifts, Escalator, Elevators – types and uses

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	7	25	Cold Water Distribution in high rise building, lay out of installation Hot water supply – General principles for central plants-layout	5.1 5.2		
2		26	Sanitation –soil and waste water installation in high rise buildings	5.3		
3		27	Electrical services – i) requirements in	5.4		

2		wire mesh and geo-synthetics.	7.3		
		7.3 Strengthening of embankments, Slope stabilization in cutting and embankments by soil reinforcing techniques			
	40	Doubt Clear/Revision:	1007		
Review:					

10) Examination Schedule:

Sl No.	Particulars of Test	Schedule	Type
1	Weekly Test (2 nd Week onwards)	Wednesday (4 th Sem.) & Thursday (6 th sem.)	10 Short Questions (02 Marks):
2	Internal Exam.-1	4 th Week	30 Marks (Long Questions)
3	Internal Exam.-2	8 th Week	30 Marks (Long Questions)

11) Assignment Collection/ Evaluation:

Sl No.	Assignment No.	Content	Schedule
1	Assignment-1	Long Questions 7 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	3 rd Week
2	Assignment-2	Long Questions 8 Nos.(10 Marks) Short Questions 6 Nos. (5 Marks)	6 th Week
3	Assignment-3	Long Questions 11 Nos.(10 Marks) Short Questions 8 Nos. (5 Marks)	9 th Week
4	Assignment-4	VST 100 Marks	10 th /11 th Week

Amrita mallick
Signature of Faculty

Signature of Asst. HOD

N. Chakraborty
Signature of HOD

B. Pal
Principal

TEACHING-CUM-LESSON PLAN

- 1) **Subject Code:** Th-4 2) **Subject Title:** Concrete Technology
 3) **Semester:** 6th 4) **Branch:** Civil Engineering
 5) **No. of Classes / Week:** 5/week
 6) **Pre Requisite for the Subject:** NIL / YES, If YES, give details:

1. Basic knowledge about Building Material & Construction.
 2. Basic civil engineering material courses.

- 7) **Text Book to be referred by students:**

SI No.	Book	Author	Publication	Year (Edition)	Whether available in Library
i	Concrete Technology	M L Gambhir	Tata McGraw Hill.	4 th	yes

- 8) **Course Coverage Schedule:**

SI No.	Week No.	Ch. No	No. of classes planed	Topic to be covered	Article		Expected Date of Completion	Remark
					From	To		
i	1	01	01	Concrete as construction material	1.1	1.1,1001	21.03.22	
		02	04	Cement	2.1	2.1		
ii	2	2	01	Aggregate, Water and Admixtures	2.1	2.1,1002	27.03.22	
		3	04		3.1	3.2		
iii	3	3	02	Properties of fresh concrete	3.3	3.3,1003	06.04.22	
		4	03		4.1	4.1		
iv	4	4	02	Properties of hardened concrete	4.1	4.1,1004	15.04.22	
		5	03		5.1	5.1		
v	5	5	04	Concrete mix Design	5.1	5.1,1005	26.04.22	
		6	01		6.1	6.1		
vi	6	6	03	Production of concrete	6.1	6.1,1006	30.04.22	
		7	02		7.1	7.1		
vii	7	7	03	Inspection and Quality Control of Concrete	7.1	7.1,1007	06.05.22	
		10	02		10.1	10.1		
viii	8	10	03	Special Concrete	10.2	10.2,1010	15.05.22	
		11	02		11.1	11.1,1011	20.05.22	
ix	9	12	05	Deterioration of concrete and its prevention	12.1	12.1		
x	10	12	01		12.1	12.1,1012	30.05.22	
		13	04		13.1	13.1,1013	03.06.22	

			concrete structures				
Total:	10	50					

9) **Detail Class wise Plan:**

Detailed Topic Plan:

Chapter No: 01 Chapter Name: Concrete as a construction material:

1.1 Grades of concrete.

1.2 Advantages and disadvantages of concrete.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	1	1	Introduction of concrete 1.1 Grades of concrete 1.2 Advantages of Concrete 1.2 Disadvantages of concrete Doubt clear and revision of topics	1.1 1001		
REVIEW						

Detailed Topic Plan:

Chapter No: 02 Chapter Name: Cement:

2.1 Composition, hydration of cement, water cement ratio and compressive strength, fineness of cement, setting time, soundness, types of cement.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	1	2	2.1 Composition of cement 2.1 Hydration of cement	2.1		
2		3	2.1 Water cement ratio 2.1 Various tests on cement for compressive strength, fineness of cement, setting time, soundness of cement as Field Tests Laboratory Tests	2.1		
3		4	2.1 Various tests on cement for compressive strength, fineness of cement, setting time, soundness of cement as	2.1		

			Field Tests Laboratory Tests			
4		5	2.1 Different types of cement such as ➤ Ordinary Portland Cement ➤ rapid hardening cement, ➤ low heat Portland cement	2.1		
5	2	6	2.1 Different types of cement such as ➤ sulphate resisting cement, ➤ white Portland cement, ➤ coloured Portland cement ➤ hydrophobic cement Doubt clear and revision of topics	2.1 1002		
REVIEW						

Detailed Topic Plan:

Chapter No: 03 Chapter Name: Aggregate, Water and Admixtures:

3.1 Classification and characteristics of aggregate, fineness modulus, grading of aggregate, I.S. 383

3.2 Quality of water for mixing and curing.

3.3 Important functions, classification of admixtures, I.S 9103, accelerating admixtures, retarding admixtures, water reducing admixtures, air containing admixtures

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	2	7	3.1 Introduction of aggregate 3.1 Classification of aggregate 3.1 Different characteristics of aggregates	3.1		
2		8	3.1 Classification according to ➤ shape & size ➤ surface texture ➤ specific gravity	3.1		

			➤ bulk density ➤ moisture content ➤ soundness ➤ strength			
3		9	3.1 Fineness modulus of aggregate, 3.1 Grading of aggregate	3.1		
4		10	3.2 Introduction of one of concrete mixing material that is water and its function in concrete 3.2 Describe in detail about Quality of mixing water, 3.2 Describe the use of water as Curing	3.2		
5	3	11	3.3 Introduction of admixture 3.3 Describe different Functions of admixtures 3.3 Classification of admixtures	3.3		
6		12	3.3 Describe briefly about different types of admixtures Doubt clear and revision of topics	3.3 1003		
REVIEW						

Detailed Topic Plan:

Chapter No: 04 Chapter Name: Properties of fresh concrete:

4.1 Concept of fresh concrete workability, slump test, compacting factor test, V-bee consistency test and flow test, requirement of workability, I.S. 1199.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	3	13	4.1 Introduction of fresh concrete 4.1 Definition of Workability	4.1		
2		14	4.1 Factor affecting workability	4.1		
3		15	4.1 Measurement of workability by doing different tests ➤ slump test	4.1		

Detailed Topic Plan:**Chapter No: 06 Chapter Name: Concrete mix Design**

6.1 a) Introduction

b) Data or input required for mix design.

6.2 Nominal mix concrete & design mix concrete.

6.3 Basic consideration for concrete mix design, Methods of proportioning concrete mix – I.S Code method of mix design (I.S. 10262)

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	5	25	6.1 Introduction of concrete mix design 6.1 Discuss about Data or input required for mix design	6.1		
2	6	26	6.2 Comparison between nominal mix and design mix	6.2		
3		27	6.2 Methods of concrete mix design	6.2		
4		28	6.3 Discuss the I.S. code method of mix design (I.S. 10262) Doubt clear and revision of topics	6.3 1006		

REVIEW**Detailed Topic Plan:****Chapter No: __7__ Chapter Name: Production of concrete:**

7.1 Batching of materials, mixing of concrete materials, transportation, placing of concrete, compaction of concrete (vibrators), Curing of concrete, Formwork-requirements and types, stripping of forms. (Concepts only)

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	6	29	7.1 Discuss Batching of materials and different methods of batching	7.1		
2		30	7.1 Describe mixing of concrete materials and different methods of mixing such as hand mixing and machine mixing	7.1		
3	7	31	7.1 Discuss Transportation and placing of concrete of concrete 7.1 Compaction of concrete (Mechanical vibrations)	7.1		

5	32	7.1 Define curing of concrete Different methods of Curing of concrete	7.1		
	33	7.1 Discuss different Requirements and types of formwork 7.1 Stripping of forms	7.1		
		Doubt clear and revision of topics	1007		
REVIEW					

Detailed Topic Plan:

Chapter No:10 Chapter Name: Inspection and Quality Control of Concrete

10.1 Quality control of Concrete as per I.S.456, Factors causing the variations in the quality of concrete

10.2 Mixing, Transporting, Placing & curing requirements of Concrete as per I.S.456.

10.3 Inspection and Testing as per Clause 17 of IS:456.

10.4 Durability requirements of Concrete as per I.S:456.

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	7	34	10.1 Quality control of concrete as per I.S.456	10.1		
2		35	10.1 Factors causing the variations in the quality of concrete	10.1		
3	8	36	10.2 Mixing, Transporting, Placing and curing requirements of concrete as per I.S.456	10.2		
4		37	10.3 Inspection and Testing as per Clause 17 of IS:456	10.3		
5		38	10.4 Durability requirements of Concrete as per I.S:456. Doubt clear and revision of topics	10.4 1010		

REVIEW

Detailed Topic Plan:

Chapter No:11 Chapter Name: Special Concrete

11.1 Introduction to ready mix concrete, high performance concrete, silica fume concrete, shotcrete concrete or gunnitting (Concepts only).

SI No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	8	39	11.1 Introduction to ready mix	11.1		

			concrete			
		40	11.1 Silica fume concrete, shot-crete concrete or gunnitting	11.1		
			Doubt clear and revision of topics	1011		

REVIEW

Detailed Topic Plan:

Chapter No: 12 Chapter Name: Deterioration of concrete and its prevention:

12.1 Types of deterioration, prevention of concrete deterioration, corrosion of reinforcement, effects and prevention

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	9	41	Deterioration of concrete 12.1 Types of deterioration	12.1		
2		42	Deterioration of concrete 12.1 Types of deterioration	12.1		
3		43	12.1 Discuss the prevention of concrete deterioration	12.1		
4		44	12.1 Define corrosion of reinforcement	12.1		
5		45	12.1 Discuss different Effects of corrosion of concrete	12.1		
6	10	46	12.1 Discuss different preventive measures of corrosion of concrete Doubt clear and revision of topics	12.1 1012		

REVIEW

Detailed Topic Plan:

Chapter No: 13 Chapter Name: Repair technology for concrete structures:

13.1 Symptom, cause and prevention and remedy of defects during construction, cracking of concrete due to different reasons. Repair of cracks for different purposes, selection of techniques, polymer based repairs, common types of repairs.

Sl No.	Week No.	Lecture No.	Topic to be Covered	Article No.	Date of Completion	Signature
1	10	47	13.1 Symptoms, cause and prevention, Remedy of defects	13.1		

		during construction			
	48	13.1 Cracking of concrete due to different reason Cracking of hardened concrete.	13.1		
3	49	13.1 Repair of cracks for different reason Selection of techniques	13.1		
4	50	13.1 Discuss Polymer based repairs and common types of repair Doubt clear and revision of topics	13.1 1013		
REVIEW					

10) Examination Schedule:

Sl No.	Particulars of Test	Schedule	Type
1	Weekly Test (2 nd Week onwards)	Wednesday (4 th Sem.) & Thursday (6 th sem.)	10 Short Questions (02 Marks):
2	Internal Exam.-1	4 th Week	30 Marks (Long Questions)
3	Internal Exam.-2	8 th Week	30 Marks (Long Questions)

11) Assignment Collection/ Evaluation:

Sl No.	Assignment No.	Content	Schedule
1	Assignment-1	Long Questions 7 Nos. (10 Marks) Short Questions 6 Nos. (5 Marks)	3 rd Week
2	Assignment-2	Long Questions 8 Nos. (10 Marks) Short Questions 6 Nos. (5 Marks)	6 th Week
3	Assignment-3	Long Questions 11 Nos. (10 Marks) Short Questions 8 Nos. (5 Marks)	9 th Week
4	Assignment-4	VST 100 Marks	10 th /11 th Week

Subhasmita Sengupta
Signature of Faculty

Signature of Asst. HOD

Signature of HOD

Principal
08/04/2022