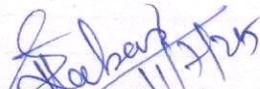
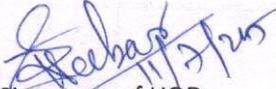


LESSON PLAN OF 5th SEMESTER CIVIL ENGINEERING

DISCIPLINE :-CIVIL ENGG.	SEMESTER:-5 th	NAME OF THE TEACHING FACULTY:- JYOTIRMAYEE SABAR, SENIOR LECTURER
SUBJECT:- RAILWAY & BRIDGE ENGINEERING TH-3	No of Days/per Week Class Allotted :- 04	SEMESTER FROM:- <u>14.07.2025 TO 15.11.2025</u> WINTER 2025 NO OF WEEKS:- 15
Week	Class Day	Theory Topics
1 st	1 st	Introduction Railway terminology Advantages of railways
	2 nd	Classification of Indian Railways
	3 rd	Permanent way Definition and components of a permanent way
	4 th	Definition and components of a permanent way
2 nd	1 st	Concept of gauge, different gauges prevalent in India, suitability of these gauges under different conditions
	2 nd	Concept of gauge, different gauges prevalent in India, suitability of these gauges under different conditions
	3 rd	Concept of gauge, different gauges prevalent in India, suitability of these gauges under different conditions
	4 th	Track materials Rails , Functions and requirement of rails
3 rd	1 st	Types of rail sections, length of rails Rail joints – types, requirement of an ideal joint
	2 nd	Purpose of welding of rails & its advantages
	3 rd	Creep- definition, cause & prevention
	4 th	Sleepers Definition, function & requirements of sleepers
4 th	1 st	Classification of sleepers
	2 nd	Advantages & disadvantages of different types of sleepers
	3 rd	Ballast Functions & requirements of ballast
	4 th	Materials for ballast Fixtures for Broad gauge
5 th	1 st	Connection of rails to rail-fishplate, fish bolts Connection of rails to sleepers
	2 nd	Geometric for broad gauge Typical cross – sections of single & double broad gauge railway track in cutting and embankment
	3 rd	Typical cross – sections of single & double broad gauge railway track in cutting and embankment
	4 th	Permanent & temporary land width
6 th	1 st	Gradients for drainage
	2 nd	Gradients for drainage
	3 rd	Gradients for drainage
	4 th	Super elevation – necessity & limiting valued
7 th	1 st	Super elevation – necessity & limiting valued
	2 nd	Super elevation – necessity & limiting valued
	3 rd	Super elevation – necessity & limiting valued
	4 th	Points and crossings

		Definition, necessity of Points and crossings
8 th	1 st	Definition, necessity of Points and crossings
	2 nd	Types of points & crossings with tie diagrams
	3 rd	Types of points & crossings with tie diagrams
	4 th	Laying & maintenance of track Methods of Laying & maintenance of track
9 th	1 st	Methods of Laying & maintenance of track
	2 nd	Duties of a permanent way inspector
	3 rd	Duties of a permanent way inspector
	4 th	Introduction to bridges Definitions Components of a bridge
10 th	1 st	Classification of bridges Requirements of an ideal bridge
	2 nd	Bridge site investigation, hydrology & planning Selection of bridge site, Alignment,
	3 rd	Determination of Flood Discharge
	4 th	Determination of Flood Discharge
11 th	1 st	Waterway & economic span
	2 nd	Afflux, clearance & free board
	3 rd	Bridge foundation Scour depth minimum depth of foundation
	4 th	Scour depth minimum depth of foundation
12 th	1 st	Types of bridge foundations – spread foundation, pile foundation- well foundation – sinking of wells, caisson foundation
	2 nd	Types of bridge foundations – spread foundation, pile foundation- well foundation – sinking of wells, caisson foundation
	3 rd	Types of bridge foundations – spread foundation, pile foundation- well foundation – sinking of wells, caisson foundation
	4 th	Types of bridge foundations – spread foundation, pile foundation- well foundation – sinking of wells, caisson foundation
13 th	1 st	Coffer dams
	2 nd	Coffer dams
	3 rd	Coffer dams
	4 th	Bridge substructure and approaches Types of piers
14 th	1 st	Types of abutments
	2 nd	Types of wing walls
	3 rd	Approaches
	4 th	Culvert & Cause ways Types of culvers – brief description
15 th	1 st	Types of culvers – brief description
	2 nd	Types of causeways – brief description
	3 rd	Types of causeways – brief description
	4 th	REVISION, PREVIOUS YEAR QUESTION ANSWER DISCUSSION

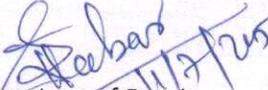

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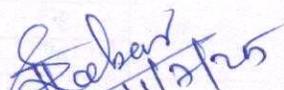

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LESSON PLAN OF 5th SEMESTER CIVIL ENGINEERING

DISCIPLINE :-CIVIL ENGG.	SEMESTER :-5 th	NAME OF THE TEACHING FACULTY:- JYOTIRMAYEE SABAR, SENIOR LECTURER
SUBJECT:- ESTIMATION & COST EVALUATION – II TH-5	No of Days/per Week Class Allotted :- 04	SEMESTER FROM:- 14.07.2025 TO 15.11.2025 WINTER 2025 NO OF WEEKS:- 15
Week	Class Day	Theory Topics
1 st	1 st	Detailed estimate of culverts and bridges Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule.
	2 nd	Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule.
	3 rd	Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule.
	4 th	Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule.
2 nd	1 st	Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule.
	2 nd	Detailed estimate of a RCC slab culvert with right angled wing walls with bar bending schedule.
	3 rd	RCC Hume pipe culvert with splayed angled wing wall
	4 th	RCC Hume pipe culvert with splayed angled wing wall
3 rd	1 st	RCC Hume pipe culvert with splayed angled wing wall
	2 nd	RCC Hume pipe culvert with splayed angled wing wall
	3 rd	RCC Hume pipe culvert with splayed angled wing wall
	4 th	RCC Hume pipe culvert with splayed angled wing wall
4 th	1 st	Estimate of irrigation structures Detailed estimate of simple type of vertical fall to given specification
	2 nd	Detailed estimate of simple type of vertical fall to given specification
	3 rd	Detailed estimate of simple type of vertical fall to given specification
	4 th	Detailed estimate of simple type of vertical fall to given specification
5 th	1 st	Detailed estimate of simple type of vertical fall to given specification
	2 nd	Detailed estimate of simple type of vertical fall to given specification
	3 rd	Detailed estimate of simple type of vertical fall to given specification
	4 th	Detailed estimate of drainage siphon to given specification.
6 th	1 st	Detailed estimate of drainage siphon to given specification.
	2 nd	Detailed estimate of drainage siphon to given specification.
	3 rd	Detailed estimate of drainage siphon to given specification.
	4 th	Detailed estimate of drainage siphon to given specification.
7 th	1 st	Detailed estimate of drainage siphon to given specification.
	2 nd	Detailed estimate of drainage siphon to given specification.
	3 rd	Detailed estimate of roads Detail estimate of a water bound macadam road
	4 th	Detail estimate of a water bound macadam road
8 th	1 st	Detail estimate of a water bound macadam road
	2 nd	Detail estimate of a water bound macadam road
	3 rd	Detailed estimate of a flexible pavement in cutting / filling
	4 th	Detailed estimate of a flexible pavement in cutting / filling

9 th	1 st	Detailed estimate of a flexible pavement in cutting / filling
	2 nd	Detailed estimate of a flexible pavement in cutting / filling
	3 rd	Detailed estimate of septic tank and soak pit for 50 users
	4 th	Detailed estimate of septic tank and soak pit for 50 users
10 th	1 st	Detailed estimate of septic tank and soak pit for 50 users
	2 nd	Detailed estimate of septic tank and soak pit for 50 users
	3 rd	Miscellaneous estimates Tube well
	4 th	Tube well
11 th	1 st	Tube well
	2 nd	Piles and Pile cap
	3 rd	Piles and Pile cap
	4 th	Piles and Pile cap
12 th	1 st	Isolated and combined footings
	2 nd	Isolated and combined footings
	3 rd	Isolated and combined footings
	4 th	PWD Accounts works Works Classification of work-original, major, petty, repair work, annual repair, special repair, quadrantal repair.
13 th	1 st	Concept of Method of execution of works through the contractors and department, contract and agreement, work order, types of contract, piece work agreement.
	2 nd	Concept of Method of execution of works through the contractors and department, contract and agreement, work order, types of contract, piece work agreement.
	3 rd	Accounts of works – Explanation of various terms Administrative approval, technical sanction, tender, preparation of notice inviting tender, quotations, earnest money, E-tendering, security deposit, advance payment, intermediate payment, final payment, running bill, final bill,
	4 th	regular and temporary establishment, cash, major & subhead of account, temporary advance (imprest money), supervision charges, suspense account, debit, credit, book transfer, voucher and related accounts .
14 th	1 st	Measurement book use & maintenance, procedure of marking entries of measurement of work and supply of materials, labour employed, standard measurement books and common irregularity
	2 nd	Muster roll : Its preparation & use for making payment of pay & wages
	3 rd	Acquittance Roll : Its preparation & use for making payment of pay & wages
	4 th	Labour & labour report, method of labour payment, use of forms and necessity of Submission
15 th	1 st	Classification of stores, receipt / issue statement on standard form, method of preparation of stock account, preparation and submission of returns, verification of stocks, shortage and excess
	2 nd	Building BYLAWS and REGULATORY Bodies, Development authorities, types and their levels, RERA etc.
	3 rd	Building BYLAWS and REGULATORY Bodies, Development authorities, types and their levels, RERA etc.
	4 th	REVISION, PREVIOUS YEAR QUESTION ANSWER DISCUSSION


Signature of Faculty


Signature of HOD

LESSON PLAN OF 5TH SEMESTER CIVIL ENGINEERING

Discipline :- CIVIL	Semester:- 5 TH	Name of the Teaching Faculty:- Mr.SWAYAN RANJAN MISRA
Subject:- Structural Design-2	No of Days/per Week Class Allotted :- 04	Semester From:- 14 JUL 2025 TO 15 NOV 2025 (WINTER 2025) No of Weeks:- 15
Week	Class Day	Theory Topics
1 st	1 st	Introduction Common steel structures, Advantages & disadvantages of steel structures
	2 nd	Types of steel, properties of structural steel.
	3 rd	Rolled steel sections, special considerations in steel design.
	4 th	Structural analysis and design philosophy.
2 nd	1 st	Loads and load combinations, Brief review of Principles of Limit State design.
	2 nd	Structural Steel Fasteners and Connections Bolted Connections Classification of bolts, advantages and disadvantages of bolted connections
	3 rd	Different terminology, spacing and edge distance of bolt holes.
	4 th	Types of bolted connections. Types of action of fasteners, assumptions and principles of design.
3 rd	1 st	Strength of plates in a joint, strength of bearing type bolts (shear capacity & Bearing capacity), reduction factors, and shear capacity of HSFG bolts with example problem.
	2 nd	Analysis & design of Joints using bearing type and HSFG bolts
	3 rd	Efficiency of a joint
	4 th	Welded Connections: Advantages and Disadvantages of welded connection
4 th	1 st	Types of welded joints and specifications for welding
	2 nd	Design stresses in welds.
	3 rd	Strength of welded joints.
	4 th	Numerical problem on welded connection
5 th	1 st	Design of Steel tension Members Common shapes of tension members
	2 nd	Common shapes of tension members
	3 rd	Analysis and Design of tension members
	4 th	Gross Strength of Tension Member
6 th	1 st	Net Strength of Tension Member
	2 nd	Block Shear Strength of Tension Member
	3 rd	Numerical Problem on Tension Member
	4 th	Numerical Problem on Tension Member
7 th	1 st	Numerical Problem on Tension Member
	2 nd	Lug angle
	3 rd	Design of Steel Compression members Common shapes of compression members.
	4 th	Buckling class of cross sections
8 th	1 st	slenderness ratio
	2 nd	Design compressive stress and strength of compression members.

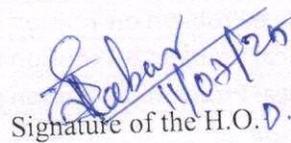
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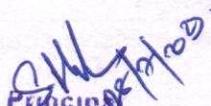
	3 rd	Design compressive stress and strength of compression members.
	4 th	Analysis and Design of compression members
9 th	1 st	Analysis and Design of compression members
	2 nd	Numerical problem solving
	3 rd	Numerical problem solving
	4 th	Numerical problem solving
10 th	1 st	Design of Steel beams: Common cross sections and their classification.
	2 nd	Common cross sections and their classification.
	3 rd	Deflection limits According To IS-800
	4 th	web buckling and web crippling.
11 th	1 st	Design of laterally supported beams against bending and shear.
	2 nd	Design of laterally supported beams against bending and shear.
	3 rd	Design of laterally supported beams against bending and shear.
	4 th	Numerical Problem solving
12 th	1 st	Numerical Problem solving
	2 nd	Numerical Problem solving
	3 rd	Design of Tubular Steel Structures: Round Tubular Section
	4 th	Permissible Stresses
13 th	1 st	Tubular Compression & Tension Members
	2 nd	Joints in Tubular trusses
	3 rd	Numerical Problem
	4 th	Numerical Problem
14 th	1 st	Design of Masonry Structures: Design considerations for Masonry walls & Columns
	2 nd	Design considerations for Masonry walls & Columns
	3 rd	Load Bearing & Non-Load Bearing walls
	4 th	Permissible stresses, Slenderness Ratio
15 th	1 st	Effective Length, Height & Thickness.
	2 nd	Numerical Problem
	3 rd	Numerical Problem
	4 th	Numerical Problem



Signature of the concerned Lecturer



Signature of the H.O.D.



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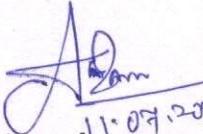
LESSON PLAN OF 5th SEMESTER CIVIL ENGINEERING

Discipline :- CIVIL	Semester:- 5th	Name of the Teaching Faculty:- ASHOK KUMAR RANA
Subject:- WATER SUPPLY AND WASTE WATER ENGINEERING	No of Days/per Week Class Allotted :- 05	Semester From:- 14th July, 2025 To:- 15th Nov, 2025 (WINTER 2025) No of Weeks:- 16
Week	Class Day	Theory Topics
1 st	1 st	Introduction to Water Supply, Quantity and Quality of water 1.1 Necessity of treated water supply
	2 nd	1.2 Per capita demand,
	3 rd	variation in demand and factors affecting demand
	4 th	1.3 Methods of forecasting population
	5 th	Numerical problems using different methods
2 nd	1 st	1.4 Impurities in water – organic and inorganic
	2 nd	Harmful effects of impurities
	3 rd	1.5 Analysis of water –physical
	4 th	chemical and bacteriological analysis
	5 th	1.6 Water quality standards for different uses
3 rd	1 st	Sources and Conveyance of water 2.1 Surface sources – Lake, stream, river and impounded reservoir
	2 nd	2.2 Underground sources – aquifer type & occurrence – Infiltration gallery, infiltration well, springs, well
	3 rd	2.3 Yield from well- methods of determination, Numerical problems using yield formulae
	4 th	2.4 Intakes – types, description of river intake, reservoir intake, canal intake
	5 th	2.5 Pumps for conveyance & distribution – types, selection, installation.
4 th	1 st	2.6 Pipe materials – necessity, suitability, merits & demerits of each type
	2 nd	2.7 Pipe joints – necessity, types of joints, suitability
	3 rd	methods of jointing Laying of pipes
	4 th	Treatment of water 3.1 Flow diagram of conventional water treatment system
	5 th	3.2 Treatment process 3.2.1 Aeration ; Necessity
5 th	1 st	3.2.2 Plain Sedimentation : Necessity, working principles
	2 nd	Sedimentation tanks – types, essential features, operation & maintenance
	3 rd	3.2.3 Sedimentation with coagulation: Necessity, principles of coagulation
	4 th	types of coagulants, Flash Mixer, Flocculator, Clarifier
	5 th	3.2.4 Filtration : Necessity, principles, types of filters Slow Sand Filter, Rapid Sand Filter
6 th	1 st	Pressure Filter – essential features .
	2 nd	3.2.5 Disinfection : Necessity, methods of disinfection.
	3 rd	Chlorination – free and combined chlorine demand, available chlorine, residual chlorine
	4 th	pre-chlorination, break point chlorination, super- chlorination
	5 th	3.2.6 Softening of water – Necessity, Methods of softening – Lime soda process and Ion exchange method
7 th	1 st	Distribution system And Appurtenance in distribution system 4.1 General requirements, types of distribution system

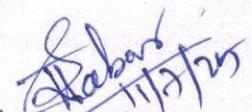

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	2 nd	distribution system-gravity, direct and combined
	3 rd	4.2 Methods of supply – intermittent and continuous
	4 th	4.3 Distribution system layout – types
	5 th	4.3 Distribution system layout – types, comparison, suitability
	1 st	4.4 Valves-types, features, uses, purpose-slucice valves
8 th	2 nd	check valves, air valves, scour valves
	3 rd	Fire hydrants, Water meters
	4 th	W/s plumbing in building 5.1 Method of connection from water mains to building supply
	5 th	5.2 General layout of plumbing arrangement for water supply in single storied and multi-storied building
	9 th	1 st
2 nd		6.2 Definition of terms related to sanitary engineering
3 rd		6.3 Systems of collection of wastes
4 th		Conservancy and Water Carriage System
5 th		Systems of collection of wastes– Conservancy and Water Carriage System – features, comparison, suitability
10 th	1 st	Quantity and Quality of sewage 7.1 Quantity of sanitary sewage – domestic & industrial sewage
	2 nd	variation in sewage flow, numerical problem on computation quantity of sanitary sewage
	3 rd	7.2 Computation of size of sewer, application of Chazy's formula
	4 th	Limiting velocities of flow : self-cleaning and scouring
	5 th	7.3 General importance, strength of sewage, Characteristics of sewage-physical, chemical & biological
11 th	1 st	7.4 Concept of sewage-sampling, tests for – solids, pH
	2 nd	dissolved oxygen, BOD, COD
	3 rd	Sewerage system 8.1 Types of system-separate, combined
	4 th	partially separate , features, comparison between the types, suitability
	5 th	8.2 Shapes of sewer – rectangular, circular, avoid-features, suitability
12 th	1 st	8.3 Laying of sewer
	2 nd	setting out sewer alignment
	3 rd	Sewer appurtenances and Sewage Disposal 9.1 Manholes and Lamp holes
	4 th	Manholes and Lamp holes – types, features, location, function
	5 th	9.2 Inlets, Grease & oil trap – features, location, function
13 th	1 st	9.3 Storm regulator, inverted siphon – features, location, function
	2 nd	9.4 Disposal on land – sewage farming, sewage application and dosing
	3 rd	sewage sickness-causes and remedies
	4 th	9.5 Disposal by dilution – standards for disposal in different types of water bodies, self purification of stream
	5 th	Sewage treatment 10.1 Principles of treatment
14 th	1 st	flow diagram of conventional treatment
	2 nd	10.2 Primary treatment – necessity, principles, essential features, functions
	3 rd	10.2 Primary treatment – necessity, principles, essential features, functions
	4 th	10.2 Primary treatment – necessity, principles, essential features, functions
	5 th	10.3 Secondary treatment – necessity, principles, essential features, functions
15 th	1 st	10.3 Secondary treatment – necessity, principles, essential features, functions
	2 nd	10.3 Secondary treatment – necessity, principles, essential features, functions

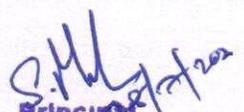
	3 rd	Sanitary plumbing for building 11.1 Requirements of building drainage, layout of lavatory blocks in residential buildings, layout of building drainage
	4 th	11.2 Plumbing arrangement of single storied & multi storied building as per I.S. code practice
	5 th	11.3 Sanitary fixtures – features, function, and maintenance and fixing of the fixtures – water closets, flushing cisterns, urinals, inspection chambers, traps, anti syphonage pipe .
16 th	1 st	DOUBT CLEARING CLASS AND REVISION & PREVIOUS FIVE YEARS QUESTION ANSWER DISCUSSION
	2 nd	
	3 rd	
	4 th	
	5 th	


11.07.2018

Signature of Lecturer


11/7/25

Signature of H.O.D


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**Lesson Plan of EMST (Entrepreneurship Management Smart Technology)
(60 Periods)**

Semester & Branch : 5th Sem Civil Engg. (2025 winter)

Name of the Teaching Faculty: Ashish Kumar Singh Babu

Semester from Date: 14/7/2025

To Date: 15/11/2025

No. of Weeks: 15 Weeks

No. of Days per Week: 4 Class Allotted

Chapters	Periods	Week	Class Day	Topics to be covered
Chapter-1 (ENTREPRENEURSHIP) (10 Periods)	1	1st	1	●Concept /Meaning of Entrepreneurship ●Need of Entrepreneurship
	2		2	●Characteristics, Qualities and Types of entrepreneur, Functions
	3		3	●Barriers in entrepreneurship ●Entrepreneurs vrs. Manager
	4		4	●Forms of Business Ownership: Sole proprietorship, partnership forms and others
	5	2nd	1	●Types of Industries, Concept of Start-ups
	6		2	●Entrepreneurial support agencies at National, State, District Level(Sources): DIC,
	7		3	●NSIC,OSIC, KVIC etc.
	8		4	●SIDBI, NABARD, Commercial Banks,
	9	3rd	1	●Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks
	10		2	●Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks
Chapter-2 (MARKET SURVEY & OPPORTUNITY IDENTIFICATION (BUSINESS PLANNING)) (8 Periods)	11		3	●Introduction to Business Planning
	12		4	●SSI, Ancillary Units, Tiny Units, Service sector Units
	13	4th	1	●Time schedule Plan, Agencies to be contacted for Project Implementation
	14		2	●Time schedule Plan, Agencies to be contacted for Project Implementation
	15		3	●Assessment of Demand and supply and Potential areas of Growth
	16		4	●Assessment of Demand and supply and Potential areas of Growth
	17	5th	1	●Identifying Business Opportunity ●Final Product selection
	18		2	●Identifying Business Opportunity ●Final Product selection
Chapter-3 (PROJECT REPORT PREPARATION) (4 Periods)	19		3	●Preliminary project report
	20		4	●Detailed project report, Techno economic Feasibility
	21	6th	1	●Detailed project report, Techno economic Feasibility
	22		2	●Project Viability
	23		3	●Definitions of management

Chapter-4 (MANAGEMENT PRINCIPLES) (5 Periods)	24		4	●Principles of management
	25	7th	1	●Functions of management (planning, organising, staffing, directing and controlling etc.)
	26		2	●Functions of management (planning, organising, staffing, directing and controlling etc.)
	27		3	●Level of Management in an Organisation
	28		4	●a) Production management ●Functions, Activities ●Productivity
Chapter-5 (FUNCTIONAL AREAS OF MANAGEMENT) (10 Periods)	29	8th	1	●Quality control ●Production Planning and control
	30		2	●b) Inventory Management ●Need for Inventory management ●Models/Techniques of Inventory management
	31		3	●c) Financial Management ●Functions of Financial management ●Management of Working capital
	32		4	●Costing (only concept) ●Break even Analysis
	33	9th	1	●Brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book,P&L Accounts, Balance Sheets(only Concepts)
	34		2	●d) Marketing Management ●Concept of Marketing and Marketing Management ●Marketing Techniques (only concepts) Concept of 4P s (Price, Place, Product, Promotion)
	35		3	●e) Human Resource Management ●Functions of Personnel Management
	36		4	●Manpower Planning, Recruitment, Sources of manpower, Selection process,
	37	10th	1	●Method of Testing, Methods of Training & Development, Payment of Wages
	Chapter-6 (LEADERSHIP & MOTIVATION) (6 Periods)	38		2
39			3	●Manager Vs Leader ●Style of Leadership (Autocratic, Democratic, Participative)
40			4	●b) Motivation ●Definition and characteristics
41		11th	1	●Importance of motivation ●Factors affecting motivation
42			2	●Theories of motivation (Maslow) ●Methods of Improving Motivation

	43		3	<ul style="list-style-type: none"> ●Importance of Communication in Business ●Types and Barriers of Communication
Chapter-7 (WORK CULTURE TQM & SAFETY) (5 Periods)	44		4	●Human relationship and Performance in Organization
	45	12th	1	●Relations with Peers, Superiors and Subordinates
	46		2	●TQM concepts: Quality Policy, Quality Management, Quality system
	47		3	●Accidents and Safety, Cause, preventive measures,
	48		4	●General Safety Rules, Personal Protection Equipment(PPE)
	Chapter-8 (LEGISLATION) (6 Periods)	49	13th	1
50			2	●Intellectual Property Rights(IPR), Patents,
51			3	●Trademarks, Copyrights
52			4	●Trademarks, Copyrights
53		14th	1	●Features of Factories Act 1948 with Amendment (only salient points)
54			2	●Features of Payment of Wages Act 1936 (only salient points)
Chapter-9 (SMART TECHNOLOGY) (6 Periods)	55		3	●Concept of IOT, How IOT works
	56		4	●Components of IOT, Characteristics of IOT,
	57	15th	1	●Categories of IOT ●Applications of IOT- Smart Cities, Smart Transportation,
	58		2	●Smart Industry, Smart Agriculture,
	59		3	●Smart Home, Smart Healthcare,
	60		4	●Smart Energy Management etc.

Abhishek Kumar Singh Babbar
Sign of Faculty 09/09/25

09/09/25
Sign of HOD