Lesson Planning (Practical)

Branch : **Civil Engineering** Semester: **4th**

Subject : **Advanced Surveying Lab** Session -**January-June 2026**

Teacher: **Er.Saibal bharti (G1)/Er. Rana Kunal (G2)**

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Remarks
1	Week 1	Practical 1	Use plane table survey to prepare plans of a plot of seven-sided closed traverse by Radiation Method.	
2	Week 2			
3	Week 3	Practical 2 Practical 3	Use plane table survey to prepare plans, locate details by Intersection Method Use plane table survey to prepare plans, locate details by Traversing Method	
4	Week 4	Practical 4	Use plane table survey to carry out Survey Project for closed traverse for minimum five sides around a building.	
5	Week 5	Practical 5	Use transit theodolite to measure Horizontal and Vertical angle by Direct Method.	
6	Week 6	Practical 6	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Theodolite Survey project.	
7	Week 7	Practical 7	Use Theodolite as a Tacheometer to compute reduced levels and horizontal distances.	
8	Week 8	Practical 8	Set out a circular curve by Rankine's Method of Deflection Angles.	
9	Week 9	Practical 9	Use micro-optic Theodolite to Measure Horizontal angle by Direct Method	
10	Week 10	Practical 10	Use EDM to measure horizontal distance	
11	Week 11	Practical 11 Practical 12	Use Total station instrument to measure horizontal distances. Use Total station instrument to measure vertical angle.	
12	Week 12	Practical 13	Use Total station instrument to carry out Survey Project for closed traverse for minimum five sides.	
13	Week 13	Practical 14	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Total Station survey project.	
14	Week 14	Practical 15	Use GPS to locate the coordinates of a station.	

Signature of Teacher

Signature of H.O.D/OIC

Lesson Planning (Practical)

Branch : **Civil Engineering** Semester: **4th**

Subject : **Building Planning & Drawing Lab** Session -**January-May 2026**

Teacher: **Er. Harish Kumar**

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Remarks
1	Week 1	Practical 1	Draw various types of lines, graphical symbols for materials, doors and windows, symbols for sanitary, water supply and electrical installations and write abbreviations as per IS 962.	
2	Week 2			
3	Week 3	Practical 2	Draw line plan to suitable scale (1BHK, staircase, WC and Bathroom)	
4	Week 4	Practical 3	Draw line plans to suitable scale for the following Public Buildings (School Building and Community Hall)	
5	Week 5	Practical 4	Draw submission drawing to the scale 1:100 of a single storey load bearing residential building (2BHK) with flat Roof and staircase showing a. Developed plan and elevation b. Section passing through Stair or W.C. and Bath c. Foundation plan and schedule of openings. d. Site plan (1:200), area statement, construction notes	
6	Week 6			
7	Week 7	Practical 5	Draw submission drawing, to the scale of 1:100, of (G+1) Framed Structure Residential Building (2BHK) with Flat Roof and staircase showing: a. Developed plan b. Elevation. c. Section passing through Staircase, WC and Bath d. Site plan (1:200) and area statement e. Schedule of openings and Construction Notes.	
8	Week 8			
9	Week 9			
10	Week 10	Practical 6	Draw working drawing for above mentioned drawing at serial number 5 showing: a. Foundation plan to the scale 1:50 b. Detailed enlarged section of RCC column and footing with plinth filling. c. Detailed enlarged section of RCC Beam, Lintel and Chajjas	
11	Week 11			
12	Week 12	Practical 7	Draw the above-mentioned drawing at serial number 5 using CAD software and enclose the printout. a. Developed plan b. Elevation. c. Section passing through Staircase, W.C. and Bath d. Foundation plan. e. Site plan (1:200), area statement, Schedule of openings and construction notes.	
13	Week 13			
14	Week 14			

Signature of Teacher

Signature of H.O.D/OIC

Lesson Planning (Theory)

Branch : **Civil Engineering** Semester : **4th**

Subject : **Building Planning And Drawing** Session : **January-June 2026**

Teacher: **Er. Harish Kumar** Class Room : **A-202**

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Reference Resources	Remarks
1	3 WEEKS	Unit – I Conventions and Symbols	• Conventions as per IS 962, symbols for different materials such as earthwork, brickwork, stonework, concrete, woodwork, and glass. • Graphical symbols for doors and windows, Abbreviations, symbols for sanitary and electrical installations. • Types of lines-visible lines, centre line, hidden line, section line, dimension line, extension line, pointers, arrowhead, or dots. Appropriate size of lettering and numerals for titles, sub-titles, notes, and dimensions. • Types of scale- Monumental, Intimate, criteria for Proper Selection of scale for various types of drawing. • Sizes of various standard papers/sheets. • Reading and interpreting readymade Architectural building drawing (To be procured from Architect, Planning Consultants, Planning Engineer)	R1,R2	
2	3 WEEKS	Unit– II Planning of Building	• Principles of planning for Residential and Public building- Aspect, Prospect, Orientation, Grouping, Privacy, Elegance, Flexibility, Circulation, Furniture requirements, Sanitation, Economy. • Space requirement and norms for minimum dimension of different units in the residential and public buildings as per IS 962. • Rules and byelaws of sanctioning authorities for construction work. • Plot area built up area, super built-up area, plinth area, carpet area, floor area and FAR (Floor Area Ratio).	R1,R2	
3	3 WEEKS	Unit– II Planning of Building	• Line plans for residential building of minimum three rooms including water closet (WC), bath and • Line plans for residential building of minimum three rooms including water closet (WC), bath and staircase as per principles of planning. Line	R1,R2	

			plans for public building-school building, primary health centre, restaurant, bank, post office, hostel, Function Hall and Library		
		Unit– III Drawing of Load Bearing Structure	• Drawing of Single storey Load Bearing residential building (2 BHK) with staircase. • Data drawing –plan, elevation, section, site plan, schedule of openings, construction notes with specifications, area statement, Planning and design of staircase- Rise and Tread for residential and public building.		
4	3 WEEKS	**Unit– III Drawing of Load Bearing Structure** **Unit– IV Drawing of Framed Structure**	• Working drawing – developed plan, elevation, section passing through staircase or WC and bath. • Foundation plan of Load bearing structure. • Drawing of Two storeyed Framed Structure (G+1), residential building (2 BHK) with stair- case. • Data drawing – developed plan, elevation, section, site plan, schedule of openings, construction notes with specifications, area statement. Planning and design of staircase- Rise and Tread for residential and public building. • Working drawing of Framed Structure – developed plan, elevation, section passing through staircase or WC and bath	R1,R2	
5	2 WEEKS	**Unit– IV Drawing of Framed Structure**	• Foundation plan of Framed Structure. • Details of RCC footing, Column, Beam, Chajjas, Lintel, Staircase, and slab. • Drawing with CAD- Draw commands, modify commands, layer commands	R1,R2	

REFERENCE RESOURCES

- R1- • Shah. M.G. Kale, CM, Patki, S.Y., Building Drawing, McGraw Hill Publishing.
- R2 –M. G. Shah and C. M. Kale, Principles of Perspective Drawing.

Signature of Teacher

Signature of H.O.D/OIC

Lesson Planning (Theory)

Branch : **Civil Engineering** Semester : **4th**

Subject : **Transportation Engineering** Session : **January-May 2026**

Teacher: **Er. Anuj Rana** Class Room : **A-202**

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Reference Resources	Remarks
1	3 WEEKS	**Unit – 1 Overview of Highway Engineering**	• Role of transportation in the development of nation, Scope and Importance of roads in India and its Characteristics. • Different modes of transportation – land way, waterway, airway. Merits and demerits of roadway and railway. • General classification of roads. • Selection and factors affecting road alignment	R1,R2	
2	3 WEEKS	**Unit– 2 Geometric Design of Highway**	• Camber: Definition, purpose, types as per IRC – recommendations. • Kerbs: Road margin, road formation, right of way. • Design speed and various factors affecting design speed as per IRC –recommendations. • Gradient: Definition, types as per IRC – Recommendations. • Sight distance (SSD): Definition, types IRC – recommendations, simple numerical. • Curves: Necessity, types: Horizontal, vertical curves. • Super elevation: Definition, formula for calculating minimum and maximum Super elevation and method of providing super-elevation. • Standards cross-sections of national highway in embankment and cutting.	R1,R2	
3	3 WEEKS	**Unit– 3 Constructio n of Road Pavements**	• Types of road materials and their Tests – Test on aggregates- Flakiness and Elongation Index tests, Angularity Number test, test on Bitumen- penetration, Ductility, Flash and Fire point test and Softening 36 point test. • Pavement – Definition, Types, Structural Components of pavement and their functions • Construction of WBM road. Merits and demerits of WBM & WMM road. • Construction of Flexible pavement / Bituminous Road, Types of Bitumen and its proper- ties, Emulsion, Cutback, Tar, Terms	R1,R2	

			used in BR-prime coat, tack coat, seal coat, Merits and Demerits of BR. • Cement concrete road methods of construction, Alternate and Continuous Bay Method, Construction joints, filler and sealers, merits and demerits of concrete roads. Types of joints		
4	3 WEEKS	**Unit– 4 Basics of Railway Engineering** **Unit-5 Track geometrics, Construction and Maintenance**	• Classification of Indian Railways, zones of Indian Railways. • Permanent way: Ideal requirement, Components; Rail Gauge, types, factors affecting selection of a gauge. • Rail, Rail Joints - requirements, types. • Creep of rail causes and prevention. • Alignment- Factors governing rail alignment. • Track Cross sections – standard cross section of single and double • line in cutting and embankment. Important terms- permanent land, formation width, side drains, • Railway Track Geometrics: Gradient, curves- types and factors affecting, grade compensation, super elevation, limits of Super elevation on curves, cant deficiency, negative cant, coning of wheel, tilting of rail. • Branching of Tracks, Points and crossings, Turn out- types, components, functions and inspection. Track junctions: crossovers, scissor cross over, diamond crossing, track triangle.	R1,R2	
5	2 WEEKS	**Unit-5 Track geometrics, Construction and Maintenance**	• Station -Purpose, requirement of railway station, important technical terms, types of rail- way station, factors affecting site selection for railway station. • Station yard: Classification- Passenger, goods, locomotive and marshalling yards. Function & drawbacks of marshalling yards. • Track Maintenance- Necessity, Classification, Tools required for track maintenance with their functions, Organization of track maintenance, Duties of permanent way inspector, gang mate and	R1,R2	

		Key man		

NCE RESOURCES

R1 – L.R. Kadiyali, Transportation Engineering, Khanna Book Publishing.

R2 – Khanna S.K., Justo, C E G and Veeraragavan, A., Highway Engineering.

ture of Teacher

Signature of H.O.D/OIC

Lesson Planning (Theory)

Branch : **Civil Engineering** Semester : **4th**

Subject : **Hydraulics** Session : **January-June 2026**

Teacher: **Er.Anuj Rana** Class Room : **A-202**

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Reference Resources	Remarks
1	3 WEEKS	Unit – 1 Pressure measurement and Hydrostatic pressure	• Technical terms used in Hydraulics – fluid, fluid mechanics, hydraulics, hydrostatics, and hydrodynamics - ideal and real fluid, application of hydraulics. □ Physical properties of fluid – density-specific volume, specific gravity, surface tension, capillarity, and viscosity-Newton's law of viscosity. □ Various types of pressure – Atmospheric Pressure, Gauge Pressure, Absolute Pressure, Vacuum Pressure. Concept of Pressure head and its unit, Pascal's law of fluid pressure and its uses. □ Measurement of differential Pressure by different methods. □ Variation of pressure with depth, Pressure diagram, hydrostatic pressure and center of pressure on immersed surfaces and on tank walls. □ Determination of total pressure and center of pressure on sides and bottom of water tanks, sides and bottom of tanks containing two liquids, vertical surface in contact with liquid on either side	R1,R2	
2	3 WEEKS	Unit– 2 Fluid Flow Parameters	• Types of flow – Gravity and pressure flow, Laminar, Turbulent, Uniform, Non-uniform, Steady, Unsteady flow. Reynolds number. • Discharge and its unit, continuity equation of flow. • Energy of flowing liquid: potential, kinetic and pressure energy. • Bernoulli's theorem: statement, assumptions, equation	R1,R2	

3	3 WEEKS	**Unit– 3 Flow through pipes**	**Major Head loss in pipe: Frictional loss and its computation by Darcy's** Welsbach equation. • Minor losses in pipe: loss at entrance, exit, sudden contraction, sudden enlargement, and fittings. • Flow through pipes in series, pipes in parallel and Dupuit's equation for equivalent pipe. • Hydraulic gradient line and total energy line	R1,R2	
4	3 WEEKS	**Unit– 4 Flow through Open Channel**	• Geometrical properties of channel section: Wetted area, wetted perimeter, hydraulic radius for rectangular and trapezoidal channel section. • Determination of discharge by Chezy's equation and Manning's equation. • Conditions for most economical rectangular and trapezoidal channel section. • Discharge measuring devices: Triangular and rectangular Notches. • Velocity measurement devices: current meter, floats and Pitot's tube. • Specific energy diagram, Froude's Number.	R1,R2	
5	2 WEEKS	**Unit– 5 Hydraulic Pumps**	• Concept of pump, Types of pumps - centrifugal, reciprocating, submersible. • Suction head, delivery head, static head, Manometric head. • Selection and choice of pump.	R1,R2	

REFERENCE RESOURCES

- R1- Modi, P. N. and Seth, S.M., Hydraulics and Fluid Mechanics.
- R2 –S.S. Rattan, Fluid Mechanics & Hydraulic Machines, Khanna Book Publishing

Signature of Teacher

Signature of H.O.D/OIC

Lesson Planning (Theory)

Branch : **Civil Engineering** Semester : **4th**

Subject : **Construction Management** Session : **January-June 2026**

Teacher: **Er. Anuj Rana** Class Room : **A-202**

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Reference Resources	Remarks
1	3 WEEKS	**Unit – I Construction industry and management**	• Organization-objectives, principles of organization, types of organization: government/public and private construction industry, Role of various personnel in construction organization • Agencies associated with construction work- owner, promoter, builder, designer, architects. • Role of consultant for various activities: Preparation of Detailed Project Report (DPR), Monitoring of progress and quality, settlement of disputes	R1,R2	
2	3 WEEKS	**Unit – II Site Layout**	• Principles governing site layout. • Factors affecting site layout. • Preparation of site layout. • Land acquisition procedures and providing compensation	R1,R2	
3	3 WEEKS	**Unit- III Planning and scheduling**	• Identifying broad activities in construction work & allotting time to it, Methods of Scheduling, • Development of bar charts, Merits & limitations of bar chart. • Elements of Network: Event, activity, dummy activities, Precautions in drawing Network, Numbering the events. • CPM networks, activity time estimate, Event Times by forward & backward pass calculation, start and finish time of activity, project duration. Floats: Types of Floats-Free, independent, and total floats, critical activities and critical path,	R1,R2	
4	3 WEEKS	**Unit- III Planning and scheduling**	• Purpose of crashing a network, Normal Time and Cost, Crash Time and Cost, Cost slope • Optimization of cost and duration. • Material Management- Ordering cost, inventory carrying cost, Economic Order Quantity Store management, various records related to store management, inventory control by ABC technique,	R1,R2	

			Introduction to material procurement through portals (e.g. www.inampro.nic.in)		
		Unit IV Construction Contracts and Specifications	• Types of Construction contracts • Contract documents, specifications, general special conditions • Contract Management, procedures involved in arbitration and settlement (Introduction only)		
5	**2 WEEKS**	**Unit– V Safety in Construction**	• Safety in Construction Industry— Causes of Accidents, Remedial and Preventive Measures. • Labour Laws and Acts pertaining to Civil construction activities (Introduction only	R1,R2	

REFERENCE RESOURCES

- R1- Sharma S C and Deodhar S V, Construction Engineering and Management.
- R2 – Gahlot,P.S. and Dhir, B.M Construction planning and management.

Signature of Teacher

Signature of H.O.D/OIC

Lesson Planning (Practical)

Branch : **Civil Engineering** Semester: **4th**

Subject : **Hydraulics Lab** Session **-January-May 2026**

Teacher: **Er. Anuj Rana**

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Remarks
1	Week 1	Practical 1	Use piezometer to measure pressure at a given point	
2	Week 2			
3	Week 3	Practical 2	Use U tube differential manometer to measure pressure difference between two given points	
4	Week 4	Practical 3	Find the resultant pressure and its position for given situation of liquid in a tank	
5	Week 5	Practical 4	Use Reynold's apparatus to determine type of flow.	
6	Week 6	Practical 5	Use Bernoulli's apparatus to apply Bernoulli's theorem to get total energy line for a flow in a closed conduit of varying cross sections.	
7	Week 7	Practical 6	Determine minor losses in pipe fittings due to sudden contraction and sudden enlargement.	
8	Week 8	Practical 7	Determine minor losses in pipe fitting due to Bend and Elbow.	
9	Week 9	Practical 8	Calibrate Venturimeter to find out the discharge in a pipe.	
10	Week 10	Practical 9	Calibrate the Orifice to find out the discharge through a tank	
11	Week 11	Practical 10	Use Current meter to measure the velocity of flow of water in open channel.	
12	Week 12	Practical 11	Use Pitot tube to measure the velocity of flow of water in open channel.	
13	Week 13	Practical 12	Use triangular notch to measure the discharge through open channel.	
14	Week 14	Practical 13	Use Rectangular notch to measure the discharge through open channel.	

Signature of Teacher

Signature of H.O.D/OIC

Lesson Planning (Practical)

Branch : **Civil Engineering** Semester: **4th**

Subject : **Transportation Engineering Lab** Session -**January-May 2026**

Teacher: **Er. Aunj Rana**

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Remarks
1	Week 1	Practical 1	Draw the sketches showing standard cross sections of Expressways, Freeways, NH/SH, MDR/ODR	
2	Week 2			
3	Week 3	Practical 2	Flakiness and Elongation Index of aggregates.	
4	Week 4	Practical 3	Angularity Number of aggregates.	
5	Week 5	Practical 4	Aggregate impact test.	
6	Week 6	Practical 5	Los Angeles Abrasion test.	
7	Week 7	Practical 6	Aggregate crushing test.	
8	Week 8	Practical 7 Practical 8	Softening point test of bitumen. Penetration test of bitumen.	
9	Week 9	Practical 9	Flash and Fire Point test of bitumen	
10	Week 10	Practical 10	Ductility test of Bitumen.	
11	Week 11	Practical 11	Visit the constructed road for visual inspection to identify defects and suggest remedial measures	
12	Week 12	Practical 12	Prepare the photographic report containing details for experiment No. 11.	
13	Week 13	Practical 13	Visit the hill road constructed site to understand its components.	
14	Week 14	Practical 14	Prepare the photographic report containing details for experiment No. 13.	

Signature of Teacher

Signature of H.O.D/OIC

Lesson Planning (Theory)

Branch : Civil Engineering Semester : 4th

Subject : Railways, Bridges And Tunnels Session : January-June 2026

Teacher: Er. Rana Kunal Class Room : A-202

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Reference Resources	Remarks
1	3 WEEKS	PART–I: RAILWAYS	• Introduction to Indian Railways • Railways surveys: Factors influencing the railways route, brief description of various types of railway survey • Classification of permanent way describing its component part • Rail Gauge; Definition, types, practice in India • Rail – types of rails • Rail Fastening: Rail joints, types of rail joints, fastening for rails, Fish plates, spikes bearing plates	R1,R2	
2	3 WEEKS	PART–I: RAILWAYS	• Sleepers: Functions of sleepers, types of sleepers, requirements of an ideal material of Sleepers. • Ballast: Function of ballast, requirements of an ideal material of ballast • Crossing and signalling: Brief description regarding different types of crossing/signalling • Maintenance of track: Necessity, track fixtures; maintenance and boxing of ballast, maintenance gauges, tools. • Drains, methods of construction.	R1,R2	
3	3 WEEKS	PART-II: BRIDGES	• Introduction • Bridge–its function and component parts, difference between a bridge and A culvert • Classification of Bridges • Their structural elements and suitability: • According to life-permanent and temporary • According to deck level–Deck, through and semi-through • According to material–timber, masonry, steel, RCC, pre-stressed • IRC classification	R1,R2	

4	3 WEEKS	**PART-II: BRIDGES**	• Bridge Foundations: Introduction to open foundation pile foundation, Well foundation • Piers, Abutments and Wing walls • Piers–definition, parts; types–solid (masonry and RCC), open • Abutment sand wing walls–definition, types of abutment (straight and tee), abutment with wing walls 47 (straight, splayed, return and curved) • Bridge bearings Purpose of bearing; types of bearing–fixed plate, rocker and roller, • Maintenance of Bridges • Inspection of bridges • Routine maintenance	R1,R2	
5	2 WEEKS	**PART–III: TUNNELS**	• Definition and necessity of tunnels • Typical section of tunnels for a national highway and single and double broad gauge railway track. • Ventilation-necessity and methods of ventilation, by blowing, exhaust and combination of blowing and exhaust • Drainage method of draining water in tunnels • Lighting in tunnels & lining of tunnels	R1,R2	

REFERENCE RESOURCES

- R1- Vaswani, NK; Railway Engineering , Algaia, JS —Bridge Engineeringl,
- R2 – Subhash C Saxena —Tunnel Engineering Dhanpat Rai and Sons

Signature of Teacher

Signature of H.O.D/OIC

Lesson Planning (Theory)

Branch: Civil Engineering Semester: 4th

Subject: Advanced Surveying Session: January-June 2025

Teacher: Er. Saibal Bharti Class Room: A-202

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Reference Resources	Remarks
1.	3WEEKS	Unit—I Plane Table Surveying	• Principles of plane table survey. • Accessories of plane table and their use. Telescopic alidade. • Setting of plane table. Determination of plane table—Back ranging and Warnett's method. • Methods of plane table survey—Radiation, Intersection and Traversing. • Merits and demerits of plane table survey.	1, 2, 3	
2.	3WEEKS	Unit—2 Theodolite Surveying	• Types and uses of Theodolite. Component parts of transit Theodolite and their functions. Reading the Vernier of transit Theodolite. • Technical terms—Swinging, Transiting, Face left, Face right. • Fundamental axes of transit Theodolite and their relationship. • Temporary adjustment of transit Theodolite. • Measurement of horizontal angle—Direct and Repetition method. Errors eliminated by method of repetition. • Measurement of magnetic bearing of a line. Prismatic and surveyor's compass. • Measurement of vertical angle. • Theodolite traversing by included angle method and Deflection angle method. • Traverse Computation—Latitude, Departure, Consecutive coordinates, independent coordinates.	1, 2, 3	

3	3 WEEKS	**Unit–3 Tacheometric surveying and Curve setting**	• Principles of Tacheometry, Tacheometer, and its component parts, Anallatic lens. • Tacheometric formula for horizontal distance with telescope horizontal and staff vertical. • Field method for determining constants of tacheometer, determining horizontal and vertical distances with tacheometer by fixed hair method and staff held vertical, Limitations of tacheometry. • Types of curves used in roads. Designation of curves. • Setting simple circular curve by offsets from long chord and Rankine's method of deflection angles.	R1,R2	
4	3 WEEKS	**Unit– 4 Advanced surveying equipment**	• Principle of Electronic Distance Meter (EDM), its component parts and their Functions, use of EDM. • Use of micro-optic Theodolite and Electronic Digital Theodolite. • Use of Total Station, Use of function keys.	R1,R2	
5	2 WEEKS	**Unit– 5 Remote sensing, GPS and GIS**	• Remote Sensing – Overview, Remote sensing system, Applications of remote sensing in Civil engineering, land use / Land cover, mapping, disaster management. • Use of Global Positioning System (G.P.S.) instruments. • Geographic Information System (GIS): Overview, Components, Applications, Software for GIS. • Introduction to Drone Surveying.	R1,R2	

REFERENCE RESOURCES

R1- Kanetkar, T. P.; Kulkarni, S. V., Surveying and Levelling Part I and II.
R2 –Duggal, S. K., Survey I and Survey II,

Signature of Teacher

Signature of H.O.D/OIC

LESSON PLAN

Name of Teacher :- Parveen Kumari **Subject:** Essence of Indian Knowledge & Tradition **Class:** 4th Semester Civil. Engg.

S. No.	Month	Week	Date	Name of Chapter	Contents to be taught	Remarks
1	January	5th Week	29,31	Unit 1: Indian Knowledge System (IKS)	A. Introduction and Function of Indian Knowledge System (IKS). B. The Basic Structure of Indian Knowledge System (IKS) (only Introduction) 1. The 4 Vedas, Namely (Rigveda), (Yajurveda), (Samaveda), (Atharvaveda) .	
2	February	1st Week	5,7		2. The 4 UpVedas, namely (Ayurveda (healthcare), (Dhanurveda (archery), (Gandharva-veda (dance, music etc.)) and (Sthapatyaveda (architecture). 3. The 6 Vedagangs, namely Shiksha , Kalpa , Vykarana , Chhandas , Nirukta , and Jyotisha .	
3		2nd Week	12		4. Itihasa (Ramayana and Mahabharata and Purana (Vishnupurana , Bhagavata Purana etc.) 5. Dharmashastra (Manusmriti , Yajnavalkya-smriti etc.)	
4		3rd Week	19,21		6. Darshan. 7. Nyaya (Logic and Epistemology)	
5		4th Week	26,28	Unit 2: Modern scien	1. Modern science: Introduction, Characteristics, importance and Example	
6	March	1st Week	5,7			
7		2nd Week	12		2. Difference between modern Science and Indian knowledge system	Class Test-I
8		3rd Week	19		3. Role of IKS in modern science	
9		3rd Week	19	Unit 3: Traditional Knowledge	1. Traditional knowledge: Definition, nature, characteristics, scope and Importance	
10		4th Week	28		2. Indigenous Knowledge (IK): characteristics	

11		1st Week	2,4	Unit 3: Traditional Knowledge	3. Traditional knowledge vis-a-vis Indigenous knowledge 4. Traditional knowledge Vs western knowledge 5. The need for protecting traditional knowledge.	
12		2nd Week	9		1. Yoga: Meaning and Importance of Yoga 2. Yoga and physical health, Yoga and psychological health, Yoga and intellectual health, Yoga and spiritual health, Yoga and social approach.	**Class Test-II**
13	**April**	3rd Week	16,18	Unit 4: Yoga and Holistic Health Care	Karma) 4. Pranayama and its types; Active lifestyle and stress management through Yoga	
14		4th Week	23,25		5. Physical Fitness, Health and wellness: Meaning and Importance of Wellness 6. Components of Wellness, Health and Physical Fitness.	
15		5th Week	30,2		7. Traditional sports & Regional Games for promoting wellness 8. Leadership through Physical Activity and Sports; Introduction to First Aid.	
16		2nd Week			**House Test**	
17	**May**	3rd Week	14,16	Unit 5: Himachal Pradesh: A Basic Information	1.History,Culture,Heritage Tradition,Customs & Manners 2. Regional Knowledge, Geographical Features, Constitutional History	
18		4th Week	21,23		3. Tourism Place & Scope 4. Festivals and Fairs	

Signature of HOD

Signature of Teacher