Lesson Plan

Name of faculty	**:**	**ManikGoyal**
Discipline	:	Civil Engineering
Semester	:	3rd(2nd Year)
Subject	:	CVE – 201-L Structural Analysis - I
Work Load	:	Lecture: 05
Lesson plan duration	:	15 weeks (AUG 2018 – DEC 2018)

Week	Theory		Date
	Lecture day	Topic (Including Assignment Test)	
1st	1	Analysis of stresses and strains: Analysis of simple states of stresses and strains	
	2	Analysis of stresses and strains: Analysis of simple states of stresses and strains	
	3	Analysis of stresses and strains: Analysis of simple states of stresses and strains	
	4	Elastic constraints	
	5	Elastic constraints	
2nd	6	Bending stresses	
	7	Bending stresses	
	8	Theory of simple bending, flexure formula,	
	9	Combined stresses in beams	
	10	Combined stresses in beams	
3rd	11	Shear stresses	
	12	Mohr's circle, Principle stresses and strains	
	13	Torsion in shafts and closed thin walled sections	
	14	Stresses and strains in cylindrical shells and spheres under internal pressure.	
	15	Stresses and strains in cylindrical shells and spheres under internal pressure.	
4th	16	Theory of Columns: Slenderness ratio, end connections, short columns,	
	17	Euler's critical buckling loads,	
	18	Euler's critical buckling loads,	
	19	Eccentrically loaded short columns,	
	20	Eccentrically loaded short columns,	
5th	21	Cylinder columns subjected to axial and eccentric loading	
	22	Bending moment and shear force in determinate beams and frames: Definitions and sign conventions, axial force, shear force and bending moment diagrams.	
	23	Bending moment and shear force in determinate beams and frames: axial force, shear force and bending moment diagrams.	
	24	Bending moment and shear force in determinate beams and frames: axial force, shear force and bending moment diagrams.	
	25	Bending moment and shear force in determinate beams and frames: axial force, shear force and bending moment diagrams.	

6th	26	Bending moment and shear force in determinate beams and frames: axial force, shear force and bending moment diagrams.	
	27	Three hinged arches: Horizontal thrust, shear force and bending moment diagrams.	
	28	Three hinged arches: Horizontal thrust, shear force and bending moment diagrams.	
	29	Three hinged arches: Horizontal thrust, shear force and bending moment diagrams.	
	30	Three hinged arches: Horizontal thrust, shear force and bending moment diagrams.	
7th		**MINOR TEST- I**	
8th	31	**Deflections in beams:** Introduction, slope and deflections in beams by differential equations	
	32	Slope and deflections in beams by differential equations	
	33	Slope and deflections in beams by differential equations,	
	34	Slope and deflections in beams by differential equations	
	35	Slope and deflections in beams by differential equations	
9th	36	Slope and deflections in beams by moment area method	
	37	Slope and deflections in beams by moment area method	
	38	Slope and deflections in beams by moment area method	
	39	Slope and deflections in beams by conjugate beam method	
	40	Slope and deflections in beams by conjugate beam method	
10th	41	Slope and deflections in beams by conjugate beam method	
	42	Slope and deflections in beams by conjugate beam method	
	43	Slope and deflections in beams by unit load method	
	44	Slope and deflections in beams by unit load method	
	45	Slope and deflections in beams by unit load method	
11th	46	Slope and deflections in beams by Principle of virtual work,	
	47	Slope and deflections in beams by Principle of virtual work,	
	48	Maxwell's Law of Reciprocal Deflections.	
	49	Maxwell's Law of Reciprocal Deflections.	
	50	Maxwell's Law of Reciprocal Deflections.	
12th	51	Analysis of statically determinate trusses: Introduction, various types,	
	52	Analysis of statically determinate trusses: stability,	
	53	Analysis of statically determinate trusses: stability,	
	54	Analysis of plane trusses by method of joints	
	55	Analysis of plane trusses by method of joints	
13th	56	Analysis of plane trusses by method of joints	
	57	Analysis of plane trusses by method of joints	
	58	Method of sections.	
	59	Method of sections.	
	60	Method of sections.	
14th		**MINOR TEST- II**	
15th	61	Method of sections.	

	62	Method of sections.	
	63	Analysis of space trusses using tension coefficient method.	
	64	Analysis of space trusses using tension coefficient method.	
	65	Analysis of space trusses using tension coefficient method.	

Name of the Faculty	**:**	Mr.Kamaldeep
Discipline	**:**	B.Tech in Civil Engineering
Semester	**:**	III (2nd Year)
Subject	**:**	CVE – 203-L, Fluid Mechanics- I
Lesson Plan Duration	**:**	15 Weeks (from Aug 2018 to Dec 2018)
Work Load (Lecture / Practical) per week (in hrs.)	**:**	Lectures – 04

Lesson Plan: CVE – 203-L, Fluid Mechanics- I			
Week	**Lecture Day**	**Theory**	
		Topic(Including Assignment Test)	**Date**
1st	1	Fluid properties, mass density, specific weight, specific volume and specific volume and specific gravity,	
	2	surface tension, capillarity, pressure inside a droplet and bubble due to surface tension, compressibility viscosity,	
	3	Newtonian and Non-newtonian fluids, real and ideal fluids	
	4	Kinematics of Fluid Flow: Stready& unsteady, uniform and non-uniform, laminar & turbulent flows, one, two & three dimensional. flows,	
2nd	5	stream lines, streak lines and path lines,.	
	6	continuity equation in differential form,	
	7	Numerical Problems	
	8	rotation and circulation,	
3rd	9	Numerical Problems	
	10	elementary explanation of stream function and velocity potential,	
	11	Numerical Problems	
	12	rotational and irrotational flows,	
4th	13	Numerical Problems	
	14	graphical and experimental methods of drawing flownets	
	15	Pressure-density-height relationship, gauge and absolute pressure,	
	16	Numerical Problems	
5th	17	simple differential and sensitive manometers, two liquid manometers,	
	18	Numerical Problems	
	19	pressure on plane and curved surfaces, center of pressure	
	20	Numerical Problems	
6th	21	Buoyancy, stability of immersed and floating bodies, determination of metacentric height,	
	22	Numerical Problems	
	23	Fluid masses subjected to uniform acceleration, free and forced vortex.	
	24	Euler's equation of motion along a streamline and its integration,	
7th	25	**MINOR TESTI**	
	26		
	27		
	28		
8th	29	Numerical Problems	
	30	limitation of Bernouli's equation, Pitot tubes,	
	31	venturimeter,	
	32	Numerical Problems	
9th	33	Numerical Problems	
	34	Orficemeter, flow through orifices & mouth pieces, sharp crested weirs and notches, aeration of nappe.	
	35	Orficemeter, flow through orifices & mouth pieces, sharp crested weirs and notches, aeration of nappe.	
	36	Orficemeter, flow through orifices & mouth pieces, sharp crested weirs and notches, aeration of nappe.	
10th	37	Numerical Problems	
	38	Numerical Problems	
	39	Numerical Problems	
	40	Boundary layer analysis: Boundary layer thickness, boundary layer over a flat plate,	
11th	41	Laminar boundary layer,	
	42	Turbulent boundary layer, laminar sub-layer,	
	43	Numerical Problems	
	44	Smooth and rough boundaries, local and average friction coefficient	

12th	45	Separation and its control.	
	46	Dimensional Analysis and Hydraulic Similitude: Dimensional analysis,	
	47	Buckingham theorem	
	48	Important dimensionless numbers and their significance,	
13th	49	Numerical Problems	
	50	geometric, kinematic and dynamic similarity,	
	51	Illustrations	
	52	model studies, physical modeling, similar and distorted models	
14th	53	**MINOR TESTII**	
	54		
	55		
	56		
15th	57	model studies, physical modeling, similar and distorted models	
	58	model studies, physical modeling, similar and distorted models	
	59	model studies, physical modeling, similar and distorted models	
	60	Illustrations	

Lesson Plan

Name of faculty	:	Mr.HinoniGoyal
Discipline	:	Civil Engineering
Semester	:	3rd (2nd YEAR)
Subject	:	**SURVEYING-I/ CVE- 205-L**
Lesson plan duration	:	15 weeks (AUG, 2018 – DEC, 2018)
Work Load	:	04

Week	Theory		Date
	Lecture Day	Topic (Including assignment / Test)	
Unit-I			
1st	1	**Fundamental Principles of Surveying:** Definition	
	2	Objects, classification	
	3	Fundamental principles	

	4	Methods of fixing stations	
2nd	5	**Measurement of distances:** Direct measurement	
	6	Instruments for measuring distance	
	7	Instruments for making stations, chaining of line	
	8	Errors in chaining, tape corrections examples	
3rd	9	**Compass and Chain Traversing:** Methods of traversing,	
	10	Instruments for measurement of angles-prismatic and surveyor's compass	
	11	Bearing of lines	
	12	Local attraction, examples	
Unit-II			
4th	13	**Leveling:** Definition of terms used in leveling	
	14	Types of levels and staff,	
	15	Temporary adjustment of levels	
	16	Principles of leveling, reduction of levels	
5th	17	Booking of staff readings, examples	
	18	Contouring, characteristics of contours lines,	
	19	Locating contours, interpolation of contours.	
	20	**Plane Table Surveying:** Plane table	
6th	21	Methods of plane table surveying	
	22	Radiation, intersection	
	23	Traversing and resection	
	24	Two point and three point problems	
7th	**1st Minor Test**		
Unit-III			
8th	25	**Theodolite and Theodolite Traversing**	
	26	Theodolites	
	27	Temporary adjustment of theodolite	
	28	Measurement of angles	
9th	29	Repetition and reiteration method,	
	30	Repetition and reiteration method,	
	31	Traverse surveying with theodolite	
	32	Traverse surveying with theodolite	
10th	33	Checks in traversing	
	34	Checks in traversing	
	35	Adjustment of closed traverse, examples	
	36	Adjustment of closed traverse, examples	
Unit-IV			
11th	37	**Curves**	
	38	Classification of curves	
	39	Elements of simple circular curve	
	40	Elements of simple circular curve	
12th	41	Location of tangent points-chain and tape methods	
	42	Instrumental methods	
	43	Examples of simple curves	
	44	Transition Curves-Length and types of transition curves	
13th	45	Transition Curves-Length and types of transition curves	
	46	Transition Curves-Length and types of transition curves	
	47	Transition Curves-Length and types of transition curves	
	48	Transition Curves-Length and types of transition curves	
14th	**2nd Minor test**		
15th	49	Length of combined curve, examples	
	50	Length of combined curve, examples	
	51	Vertical Curves: Necessity and types of vertical curves	
	52	Vertical Curves: Necessity and types of vertical curves	

Name of the Faculty	**:**	Mr. Manoj Kumar
Discipline	**:**	B.Tech in Civil Engineering
Semester	**:**	III (2nd Year)
Subject	**:**	CVE – 207-L, Engineering Geology
Lesson Plan Duration	**:**	15 Weeks (from Aug, 2018 to Dec, 2018)
Work Load (Lecture / Practical) per week (in hrs.)	**:**	Lectures – 04

Lesson Plan: CVE 207-L ENGINEERING GEOLOGY			
Week	**Lecture Day**	**Theory**	
		Topic(Including Assignment Test)	**Date**
	1	**Introduction:** Definition, object, scope and sub division of geology, geology around us.	
	2	The interior of the earth.	

1st	3	Importance of geology in Civil Engineering projects.	
	4	Classification of Engineering Geology, scope of geology	
2nd	5	**Physical Geology:** The external and internal geological forces causing changes,	
	6	Weathering and erosion of the surface of the earth.	
	7	Geological work of ice, water and winds.	
	8	Geological work of ice, water and winds	
3rd	9	Geological work of ice, water and winds	
	10	Soil profile and its importance.	
	11	Earthquakes and volcanoes.	
	12	Earthquakes and volcanoes	
4th	13	**Mineralogy and Petrology:** Definition - mineral and rocks, Classifications	
	14	Classification of important rock forming minerals,	
	15	Simple description based on physical properties of minerals.	
	16	Simple description based on physical properties of minerals.	
5th	17	Rocks of earth surface, classification of rocks.	
	18	Mineral composition, Textures, structure and origin of igneous rocks.	
	19	Mineral composition, Textures, structure and origin of Sedimentary rocks.	
	20	Mineral composition, Textures, structure and origin of metamorphic rocks.	
6th	21	Aims and principles of stratigraphy.	
	22	Standard geological/stratigraphical time scale with its sub division and a short description based on engineering uses of formation of India.	
	23	**Structural Geology:** Forms and structures of rocks.	
	24	Bedding plane and outcrops	
7th	25	**MINOR TEST- I**	
	26		
	27		
	28		
8th	29	Bedding plane and outcrops	
	30	Dip and Strike.	
	31	Elementary ideas about fold, fault,	
	32	Elementary ideas about joint and unconformity	
9th	33	Elementary ideas about recognition on outcrops	
	34	Importance of geological structures in Civil Engineering projects	
	35	**Applied Geology:** Hydrogeology, water table, springs	
	36	**Applied Geology:** Hydrogeology, water table, springs	
10th	37	Artesian well, aquifers, ground water in engineering projects	
	38	Artesian well, aquifers, ground water in engineering projects	
	39	Artificial recharge of ground water,	
	40	Elementary ideas of geological investigations	
11th	41	Remote sensing techniques for geological and hydrological survey and investigation	
	42	Remote sensing techniques for geological and hydrological survey and investigation	
	43	Uses of geological maps and interpretation of data, geological reports	
	44	**Suitability and stability of foundation sites and abutments:** Geological condition and their influence on the selection, location,	
12th	45	Type and design of dams, reservoirs	
	46	Type and design of dams, reservoirs	
	47	Type and design of dams, reservoirs	
	48	Tunnels, highways, bridges etc.	
13th	49	Tunnels, highways, bridges etc.	
	50	Tunnels, highways, bridges etc.	
	51	Landslides and Hill-slope stability.	
	52	Landslides and Hill-slope stability	
14th	53	**MINOR TEST- II**	
	54		
	55		
	56		

15th	57	**Improvement of foundation rocks:** Precaution and treatment against faults, joints and ground water,	
	58	Retaining walls and other precautions.	
	59	Geology and environment of earth	
	60	Geology and environment of earth	

Name of the Faculty : Ms.ManjuGodara

Discipline : B.Tech in Civil Engineering

Semester : III (2nd Year)

Subject : CVE – 209-L, BCM&D

Lesson Plan Duration : 15 Weeks (from Aug, 2018 to Dec, 2018)

Work Load (Lecture / Practical) per week (in hrs.) : Lectures – 03

Week	Theory		Date
	Lecture Day	Topic (Including assignment / Test)	
1st	1	CONSTRUCTION: MasonryConstruction: Introduction,varioustermsused,stonemasonry-Dressingofstones, Classifications ofstone masonry, safe permissible loads	
	2	Brick masonry-bonds in brick work, structuralbrick work-cavity and hollow walls,	
	3	reinforcedbrickwork, Defectsinbrick masonry,composite stone andbrick masonry,glass blockmasonry	
2nd	4	Cavity and Partition Walls: Advantages, positionofcavity	
	5	Typesof non-bearingpartitions, Constructionaldetailsandprecautions	
	6	Constructionofmasonrycavity wall.	
3rd	7	Foundation: Functions,types ofshallow foundations,sub-surface investigations	
	8	Geophysicalmethods, general featureofshallow foundation, Foundations inwater loggedareas,	
	9	Designofmasonrywallfoundation, Introductiontodeep foundations i.e. pile andpierfoundations.	

4th	10	Damp-ProofingandWater-Proofing: Defects and causesof dampness,prevention of dampness	
	11	Materials used,damp-proofing treatmentin buildings, Damp-proofing treatmentin buildings	
	12	water proofing treatmentof roofs includingpitched roofs	
5th	13	RoofsandFloors: Types ofroofs,various termsused	
	14	Rooftrusses-kingpost truss,queen post truss etc.	
	15	Floorstructures, ground, Basement and upper floors, various types offloorings.	
6th	16	Doors and Windows: Locations,sizes, typesofdoors and windows,fixuresand fastnersfordoorsand windows	
	17	Acoustics, Sound Insulationand FireProtection: Classification, measurementand transmissionofsound, sound absorber, classificationof absorbers, sound insulation of buildings	
	18	Wallconstructionandaccousticaldesignof auditorium,fire-resistingpropertiesofmaterials, Fireresistantconstructionandfire protection requirements forbuildings.	
7th	**1st Minor Test**		
8th	19	B.MATERIALS Stones : Classification,requirementsofgoodstructuralstone.	
	20	Quarrying, blasting andsorting outof stones, Dressing,sawing and polishing, Preventionandseasoning of stone.	
	21	Brick and Tiles: Classificationofbricks, Constituentsofgood brick earth	
9th	22	Typesofterra-cotta, Uses ofterra-cotta	
	23	Limes,Cementand Mortars: Classification oflime,manufacturing,artificialhydraulic lime	
	24	Storage of lime	
10th	25	Cementscomposition, types ofcement	
	26	manufacturing of ordinary Portlandcement, testing ofcement, specialtypes ofcement, storage ofcement	
	27	Mortars: Definition,proportions oflime and cementmortars,mortars formasonry and plastering	
11th	28	Timber: Classificationoftimber, structureoftimber	
	29	Seasoning of timber, defectsintimber, fire proofing oftimber	
	30	Timber,plywood, fiberboard, Masonite and its manufacturing,importantIndiantimbers	
12th	31	Ferrous and Non-Ferrous Metals: Definitions, manufacturing of cast iron	
	32	Manufacturingofsteel from pigiron, typesofsteel,	
	33	Marketable form ofsteel, Manufacturing ofaluminium and zinc	
13th	34	Paints and Varnishes: Basicconstituents of paints	
	35	Types of paints,painting ofwood	
	36	Constituents of varnishes, Characteristicsand types of varnishes.	
14th	**2nd Minor test**		
15th	37	Plastic: Definition, classificationof plastics, compositionandrawmaterials	
	38	Manufacturing,characteristics and uses	
	39	Polymerization, classification, special varieties.	

Name of the Faculty : Mr. Harish
Discipline : B.Tech in Civil Engineering
Semester : III (2nd Year)
Subject : CVE – 201-P STRUCTURAL ANALYSIS – I LAB
Lesson Plan Duration : 15 Weeks (from AUG, 2018 to DEC, 2018)
Work Load (Lecture / Practical) per week (in hrs.) : Practical – 02

Week	Practical		Date
	Lecture day	Topic (Including Assignment Test)	
1st	1	Verification of reciprocal theorem of deflection using a simply supported beam. (G 1)	
	2	Verification of reciprocal theorem of deflection using a simply supported beam. (G 2)	
2nd	3	Verification of moment area theorem for slopes and deflections of the beam(G 1)	
	4	Verification of moment area theorem for slopes and deflections of the beam (G 2)	
3rd	5	Deflections of a truss- horizontal deflection & vertical deflection of various joints of a pin- jointed truss(G 1)	
	6	Deflections of a truss- horizontal deflection & vertical deflection of various joints of a pin- jointed truss (G 2)	
4th	7	Elastic displacements (vertical & horizontal) of curved members.(G 1)	
	8	Elastic displacements (vertical & horizontal) of curved members. (G 2)	
5th	9	Experimental and analytical study of 3 hinged arch and influence line for horizontal thrust.(G 1)	
	10	Experimental and analytical study of 3 hinged arch and influence line for horizontal thrust. (G 2)	
6th	11	Experimental and analytical study of behavior of struts with various end conditions. (G 1)	
	12	Experimental and analytical study of behavior of struts with various end conditions. (G 2)	
7th	13	**MINOR TEST 1**	
8th	14	**VIVA – VOCE Group - 1**	

	15	**VIVA – VOCE Group - 2**	
9th	16	To determine elastic properties of a beam (G 1)	
	17	To determine elastic properties of a beam (G 2)	
10th	18	Uniaxial tension test for steel (plain bars) (G 1)	
	19	Uniaxial tension test for steel (plain bars) (G 2)	
11th	20	Uniaxial tension test for steel (Deformed bars) (G 1)	
	21	Uniaxial tension test for steel (Deformed bars) (G 2)	
12th	22	Uniaxial compression test on concrete specimens (G 1)	
	23	Uniaxial compression test on concrete specimens (G 2)	
13th	24	Uniaxial compression test on brick specimens (G 1)	
	25	Uniaxial compression test on brick specimens (G 2)	
14th	26	**MINOR TEST II**	
15th	27	**VIVA – VOCE Group - 1**	
	28	**VIVA – VOCE Group - 2**	

Name of the Faculty : Mr.Kamaldeep
Discipline : B.Tech in Civil Engineering
Semester : III (2ND Year)
Subject : CVE – 203- P FLUID MECHANICS – I LAB
Lesson Plan Duration : 15 Weeks (from AUG, 2018 to DEC, 2018)
Work Load (Lecture / Practical) per week (in hrs.) : Practical – 02

Week	Practical		Date
	Lecture day	Topic (Including Assignment Test)	
1st	1	To determine meta-centric height of the ship model. (G 1)	
	2	To determine meta-centric height of the ship model.(G 2)	
2nd	3	To verify the Bernoulli's theorem (G 1)	
	4	To verify the Bernoulli's theorem (G 2)	
3rd	5	To determine coefficient of discharge for an Orifice-meter. (G 1)	
	6	To determine coefficient of discharge for an Orifice-meter.(G 2)	
4th	7	To determine coefficient of discharge of a venture-meter (G 1)	
	8	To determine coefficient of discharge of a venture-meter (G 2)	
5th	9	To determine the various hydraulic coefficients of an Orifice (Cd, Cc, Cv). (G 1)	
	10	To determine the various hydraulic coefficients of an Orifice (Cd, Cc, Cv). (G 2)	
6th	11	To determine coefficient of discharge for an Orifice under variable head.(G 1)	
	12	To determine coefficient of discharge for an Orifice under variable head.(G 2)	
7th	13	**MINOR TEST 1**	
8th	14	**VIVA – VOCE Group - 1**	
	15	**VIVA – VOCE Group - 2**	
9th	16	To calibrate a given notch.(G 1)	
	17	To calibrate a given notch.(G 2)	
10th	18	To determine coefficient of discharge for a mouth piece. (G 1)	
	19	To determine coefficient of discharge for a mouth piece. (G 2)	
11th	20	Drawing of a flow-net by Viscous Analogy Model and Sand Box Model. (G 1)	
	21	Drawing of a flow-net by Viscous Analogy Model and Sand Box Model. (G 2)	

12th	22	To study development of boundary layer over a flat plate (G 1)	
	23	To study development of boundary layer over a flat plate (G 2)	
13th	24	To study velocity distribution in a rectangular open channel.(G 1)	
	25	To study velocity distribution in a rectangular open channel.(G 2)	
14th	26	**MINOR TEST II**	
15th	27	**VIVA – VOCE Group - 1**	
	28	**VIVA – VOCE Group - 2**	

Name of the Faculty : Mr.HinoniGoyal
Discipline : B.Tech in Civil Engineering
Semester : III (2nd Year)
Subject : CVE – 205- P SURVEYING – I LAB
Lesson Plan Duration : 15 Weeks (from AUG 2018 to DEC 2018)
Work Load (Lecture / Practical) per week (in hrs.) : Practical – 02

Week	Practical		Date
	Lecture day	Topic (Including Assignment Test)	
1st	1	Chain surveying: Chaining and chain traversing. (G 1)	
	2	Chain surveying: Chaining and chain traversing. (G 2)	
2nd	3	Compass traversing (G1)	
	4	Compass traversing (G2)	
3rd	5	Plane tabling: methods of plane table surveying, two point problem (G 1)	
	6	Plane tabling: methods of plane table surveying, two point problem (G 2)	
4th	7	To verify the, three point problem (G 1)	
	8	To verify the, three point problem (G 2)	
5th	9	To verify the, three point problem (G 1)	
	10	To verify the, three point problem (G 2)	
6th	11	Leveling: Profile leveling and plotting of longitudinal section and cross sections (G 1)	
	12	Leveling: Profile leveling and plotting of longitudinal section and cross sections (G 2)	
7th	13	**MINOR TEST 1**	
8th	14	**VIVA – VOCE Group - 1**	
	15	**VIVA – VOCE Group - 2**	
9th	16	Permanent adjustment of level.(G 1)	
	17	Permanent adjustment of level. (G 2)	
10th	18	Reciprocal leveling (G 1)	
	19	Reciprocal leveling (G 2)	
11th	20	Plane tabling: methods of plane table surveying, two point problem (G 1)	
	21	Plane tabling: methods of plane table surveying, two point problem . (G 2)	
12th	22	Contouring and preparation contour map (G 1)	
	23	Contouring and preparation contour map (G 2)	

13th	24	Use of Tangent Clinometers. (G 1)	
	25	Use of Tangent Clinometers. (G 2)	
14th	26	**MINOR TEST II**	
15th	27	**VIVA – VOCE Group - 1**	
	28	**VIVA – VOCE Group - 2**	

Lesson Plan

Name of faculty : Harish Kumar/Sumeet/Manoj Kumar
Discipline : Civil Engineering/CSE/FT/EE
Semester : 3rd
Subject : ENVIROMENTAL STUDIES/EVS-201-L
Work Load : Lecture: 03
Lesson plan duration : 15 weeks (AUG 2018 – DEC 2018)

Week	Theory		Date
	Lecture Day	Topic (Including assignment / Test)	
1st	1	Environmental Studies - Definition, scope and importance, need for public awareness,	
	2	Concept of ecosystems, Structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem,	
	3	Ecological succession ,Food chains, Food webs and ecological pyramids, Introduction, types, characteristics features,	
2nd	4	structure and function of the following ecosystems: Forest ecosystem, Grassland ecosystem	
	5	Desert ecosystem, Aquatic ecosystem (Ponds, Stream, lakes, rivers, oceans, estuaries),	
	6	Study of simple ecosystems – ponds, river, hill slopes etc.	
3rd	7	Activity - Visit to a local area to document environmental assets-river/forest/grassland/hill/mountain	
	8	Renewable and non-renewable resources, Natural resources and associated problems,	
	9	Forest resources: Use and over-exploitation, deforestation, case studies,	
4th	10	Timber extraction, mining, dams and their effects on forests and tribal people,	
	11	Water resources: Use and over utilization of surface and ground water, floods, droughts conflicts over water, dams benefits and problems,	
	12	Mineral resources: Use and exploitation, environmental effects of extracting and	

		mineral resources,	
5th	13	Food resources: World food problem, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity,	
	14	Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies,	
	15	Land resources: Land as a resource, land degradation, main induced landslides, soil erosion and desertification,	
6th	16	Role of an individual in conservation of natural resources, Equitable use of resources for suitable lifestyle.	
	17	Introduction-Definition: genetic, species and ecosystem diversity	
	18	Bio geographical classification of India, Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and option values,	
7th	**1st Minor Test**		
8th	19	Biodiversity at global, national and local level, India as a mega-diversity nation,	
	20	Hot-spot of biodiversity, Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, Endangered and endemic species of India, Study of common plants, insects, birds.	
	21	Definition of Environment Pollution, types, sources, related problems	
9th	22	Causes, effects and control measures of: Air Pollution, Water Pollution,	
	23	Causes, effects and control measures of: Soil pollution, Marine pollution, Noise pollution,	
	24	Causes, effects and control measures of: Thermal pollution, Nuclear hazards, Solid waste Management: effects and control measures of urban and industrial wastes.	
10th	25	individual in prevention of Role of and pollution, Pollution case studies,	
	26	Disaster management: floods, earthquake, cyclone and landslides,	
	27	Activity - Visit to a local polluted site- Urban/Rural/Industrial/Agricultural	
11th	28	Sustainable development – Definition, Importance and Need, From unsustainable of Sustainable development – Case Studies	
	29	Urban problems related to Energy, Water conservation	
	30	Urban problems related to rain water harvesting, watershed management,	
12th	31	Resettlement and rehabilitation of people; its problem and concern,	
	32	Environment ethics: Issues and possible solutions,	
	33	Case studies – Smog, Ozone layer depletion, Nuclear accidents	
13th	34	Wasteland reclamation, Consumerism and waste products	
	35	Environment Protection Act, Air (Prevention and Control of Pollution) Act,	
	36	Water (Prevention and Control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act.	
14th	**2nd Minor test**		
15th	37	Issues involved in enforcement of environmental legislation, Public awareness, Population growth, variation among nation,	
	38	Population explosion- Family Welfare Programme, Environment and human health , Human Rights,	
	39	Value Education, HIV/AIDS, Women and Child Welfare, Role of Information Technology in Environment and human health, Case Studies	