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## DEPARTMENT OF CIVIL ENGINEERING

## COURSE OUTCOMES

## REGULATION: 2013

S.NO	COURSE NAME		COURSE OUT COMES		
	IICAL ENGLISH-I S6151)	C101.1	Understand the basic grammatical functions and vocabulary.		
		C101.2	Speak and write clearly and communicate using appropriate communicative strategies		
1		C101.3	Write Informal letters /blog/email with a wide range of vocabulary		
	TECHI (H	C101.4	listen/view and comprehend different spoken discourses and passages in different accents.		
	C101 -	C101.5	Read and write different genres of texts.		
	5 – I	C102.1	Understand the Concepts of Diagonalization of matrices.		
	ATICS 1)	C102.2	Apply simple techniques for testing the convergence of sequences and series		
2	THEM 1A615	C102.3	Use the differentiation concepts to differentiate functions		
	- MA (N	C102.4	Apply partial differentiation in functions of several variables.		
	C102	C102.5	Apply integration concepts to compute multiple integrals.		
	C103 - ENGINEERING PHYSICS-I (PH6151)	C103.1	Able to classify various crystal structures and its parameters.		
		C103.2	Explain the basics of properties of matter, the thermal properties of materials like thermal conductivity and its application.		
3		C103.3	Acquire knowledge on the concepts of quantum theory and its application in tunneling microscopes.		
		C103.4	Understands the basic concepts of Acoustics in buildings and the production of ultrasonic waves and its application in NDT and medical field.		
		C103.5	Understands the concept of photonics and its usage in the production of different types of laser and the principle of fibre optics with its application in various fields.		
	G 51)	C104.1	Understand the types of water and water treatment techniques.		
	EERIN (CY61	C104.2	Utilize the various adsorbent in industries.		
4	NGINI IRY-I	C104.3	Classify the types of alloys and understand the component present in the alloys.		
	104- Ei EMIST	C104.4	Explain the types of fuels and manufacturing of secondary fuels.		
	CI	C104.5	Illustrate the types of energy resources.		
	۲ 5151)	C105.1	Know the organization of digital Computer		

S.NO	COURSE NAME		COURSE OUT COMES
	C105- COMPUTEI PROGRAMMING (GE	C105.2	Design C Programs for problems.
5		C105.3	Write and execute C programs using Arrays and Strings for simple applications
		C105.4	Usage of Pointers and Function in C programming
		C105.5	Design Programming using Structures and Union
	NG 2)	C106.1	Discuss about conics and orthographic views of engineering components
	ERIN E615	C106.2	Draw the projection of points, lines and planes
6	IGINI CS (C	C106.3	Classify solids and projection of solids at different positions
	5 - EN APHI	C106.4	Show sectioned view of solids and development of surface
	C100 GR	C106.5	Draw isometric projection and perspective views of an object/solid
	RY (	C107.1	Know about Data Manipulation in MS Office Packages
	PUTER ORATO 1 )	C107.2	Apply good programming design methods for program development using Decision making and looping statements.
7	COM 5 LAB iE616	C107.3	Design and implement C programs using strings and arrays.
	C107 - PRACTICES G	C107.4	Design and implement C programs using functions and string functions.
		C107.5	Develop recursive functions and develop programs using structures and unions.
	C108 - ENGINEERING PRACTICES LABORATORY (GE6162)	C108.1	Apply the knowledge of pipeline connections to household fittings and industrial buildings.
		C108.2	Prepare the different joints in roofs, doors, windows and furniture.
8		C108.3	Perform step turning operation in a lathe.
		C108.4	Perform the various welding processes and know about its applications.
		C108.5	Produce a funnel using sheet metal.
	D 163)	C109.1	Understand the concept of Laser and its diffraction for different usage
	S ANI LY ( GE6	C109.2	Able to find the velocity of ultrasonic waves in different liquid.
9	HYSIC MISTR DRY-I (	C109.3	Apply principle of diffraction to determine the wavelength of visible spectrum.
	09 - PH CHE JRATC	C109.4	Understand the various parameter affecting the thermal conductivity of poor conductor
	C1 LABC	C109.5	Analyze the various modulus of elasticity of different types of materials.
	LISH.	C110.1	Understand basic grammar and know to engage in conversation.
	L ENGI	C110.2	Write and produce different types of technical write ups.
10	NICAI IS625	C110.3	Read and write different genres of technical texts.

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	TECH II (]	C110.4	Create Job applications and Resume / E - Resume		
	C110 -	C110.5	Express opinions and initiate a discussion using appropriate communicative strategies		
	- SC	C111.1	Understand the concepts of Vector Calculus and their applications.		
	MATI 51)	C111.2	Interpret the Concepts of analytic functions and Conformal mapping.		
11	ATHEI MA62	C111.3	Understand the integration concepts on Complex integration		
	- M/	C111.4	Demonstrate the main concepts on Laplace transformations and their applications		
	C111	C111.5	Use various techniques in solving differential equations.		
	II-S	C112.1	Gain knowledge on the conducting materials and its properties		
	PHYSIC	C112.2	Acquire knowledge on the concepts of carrier concentration in intrinsic and extrinsic semiconductors and its determination using Hall effect.		
12	EERING PH6251)	C112.3	Classify the different types of magnetic materials and know the properties of superconductors.		
	ENGINH (P	C112.4	Understands the basic concepts of dielectric materials and its usage in capacitors and transformers.		
	C112 -	C112.5	Able to classify the different modern engineering materials and its application in different fields.		
	4G 251)	C113.1	Illustrate the types of electrochemical cell		
	C113 - ENGINEERIN CHEMISTRY-II (CY6	C113.2	Summarize the types of corrosion and corrosion prevention methods.		
13		C113.3	Explain the types of fuels and manufacturing of secondary fuels.		
		C113.4	Classify the types of alloys and understand the component present in the alloys.		
		C113.5	Analyze the sample using various spectroscopy.		
	ECTRICAL RONICS (GE6252)	C114.1	Applying the fundamentals of electric circuits and electrical measuring instruments		
		C114.2	Understanding the concepts of electrical machines		
14	ASIC EL ELECT EERINC	C114.3	Understand the concepts of various electronic devices		
	4 - BA AND IGINE	C114.4	Understand the concepts of various Digital Electronics		
	C11- L	C114.5	Acquire knowledge on basic concepts of Communication Engineering		
	NG 53 )	C115.1	Illustrate the vectorial and scalar representation of forces and moments.		
	EERL GE62	C115.2	Analyse the rigid body in equilibrium.		
15	NGIN	C115.3	Evaluate the properties of surfaces and solids.		
	15 - El CHAN	C115.4	Calculate dynamic forces exerted in rigid body.		

S.NO	COURSE NAME	COURSE OUT COMES		
	C1 ME	C115.5	Determine the friction and the effects by the laws of friction.	
16	ER AIDED AODELLING (GE6261)	C116.1	Sketch simple figures with title block using AutoCAD software commands.	
		C116.2	Sketch curves like parabola, spiral and involute of square & circle and draw the orthographic projection of simple solids.	
	OMPUT 3 AND I ATORY	C116.3	Prepare orthographic projection of simple machine parts and draw a plan of residential building.	
	16 - C FTING ABOR	C116.4	Sketch simple steel truss and sectional views of simple solids.	
	C1 DRA L/	C116.5	Prepare 2D multi view drawing from 3D model.	
	dD FORY-	C117.1	Analyze the various modulus of elasticity of different types of materials.	
	CS AN ORA <sup>7</sup> 52)	C117.2	Understand the various parameters affecting the band gap of semiconductor.	
17	PHYSI (Y LAB (GE626	C117.3	Apply principle of diffraction to determine the parameters of optical prism.	
	117 - 7 AISTR II	C117.4	Analyze the co-efficient of viscosity of different liquids.	
	C	C117.5	Apply the basic principles of optics to determine the thickness of thin materials.	
	C201- TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS (MA6351)	C201.1	Demonstrate the effective mathematical tools used for Solving partial differential equations	
		C201.2	Illustrate the Fourier series which is central to many applications in engineering.	
18		C201.3	Apply the applications of partial differential equations for boundary value problems using Fourier series analysis.	
		C201.4	Acquire Fourier transform techniques used in wide variety of situations.	
		C201.5	Explain Z transform techniques for discrete time systems and solve difference equations using Z transform.	
	1TAL 351)	C202.1	Define the scope and importance of environment ecosystem and biodiversity	
	NMEN AND (GE6	C202.2	Explain about the causes and effects of environmental pollution	
19	VIRO ENCE ERING	C202.3	Describe about the properties of natural sources	
	2 - EN SSCI GINEE	C202.4	Illustrate the social issues and environment problems	
	C202 EN(	C202.5	State about human population and variation among nations	
	NG (I	C203.1	Illustrate the different weathering process, geology formations, classification and morphology of rocks.	
	E630	C203.2	Explain the properties of minerals.	
20	ENGINI	C203.3	Explain the principles that govern the origin of igneous, sedimentary and metamorphic rocks.	
	)3 - E Eolo	C203.4	Describe joints, faults and fold using correct technical terminology	

S.NO	COURSE NAME		COURSE OUT COMES
	C2( GI	C203.5	Apply geological knowledge in projects such as dams, tunnels, bridges, roads and airport ets.,
	NICS OF 6302)	C204.1	Estimate the stress and strain due to external forces and temperature changes for solid bodies.
		C204.2	Calculate the bending and shear stresses for beams subjected to various loads.
21	IECHA DS (CF	C204.3	Determine the deflection of beams by various methods
	04 - N SOLI	C204.4	Estimate the dimension of the shaft and maximum energy stored in springs.
	C2	C204.5	Predict the forces in the members of truss.
	OF	C205.1	Explain the basic properties of fluids.
	NICS (6303)	C205.2	Describe the properties of fluid under motion.
22	ECHA DS (CE	C205.3	Estimate the loss of head occurs in the pipe flow.
	)5 - M Fliut	C205.4	Estimate the various boundary layer thickness.
	C2(	C205.5	Set up a relation among various parameters based on dimensional analysis and model study
	C206 - SURVEYING-I (CE6304)	C206.1	Explain the basic principles of chain surveying
		C206.2	Compute the included angles using compass surveying
23		C206.3	Discuss the working principles of different leveling instruments
		C206.4	Use leveling instrument to plot the contour mapping
		C206.5	Compute the horizontal and vertical angles using theodolite surveying
	EYING (CE6311)	C207.1	Students would have acquired practical knowledge on handling basic survey instruments including Theodolite, Tacheometry
		C207.2	To determine the height of various objects using theodolite
24	:URV AL-I	C207.3	Students would have acquired practical knowledge on handling Total station
	07 - S CTIC	C207.4	To gain knowledge about the cutting and filling of embankments
	C2 PRA	C207.5	Acquired practical knowledge on handling basic survey instruments
		C207.6	Acquired practical knowledge on development of contour map
	2) <sup>1,7</sup> R	C208.1	To introduce the students to draft the plan, elevation and sectional views of building
	MPUTE JILDING (CE631	C208.2	To draft the plan, elevation and sectional views of theindustrial structures using computer softwares.
25	38 - COI JED BU AWING	C208.3	To draft the plan, elevation and sectional views of the framed building using computer softwares.
	C20 AIE DRA	C208.4	To draft the plan, elevation and sectional views of the buildings using computer softwares.

S.NO	COURSE NAME		COURSE OUT COMES
	RICAL METHODS (A6459)	C209.1	To introduce the basic concepts of solving algebraic and transcendental equations.
26		C209.2	To introduce the numerical techniques of interpolation in various intervals in real life situations
		C209.3	To acquaint the student with understanding of numerical techniques of differentiation and integration which plays an important role in engineering and technology disciplines
	IMUN - (	C209.4	To acquaint the knowledge of various techniques and methods of solving ordinary differential equations.
	C209	C209.5	To understand the knowledge of various techniques and methods of solving various types of partial differential equations.
	10N (10	C210.1	Will be able to understand the importance of geological knowledge such as earth, earthquake, volcanism and the action of various geological agencies
	tUCT CE64	C210.2	Will get basics knowledge on properties of minerals.
27	NSTR ALS (	C210.3	Gain knowledge about types of rocks, their distribution and uses
	- CO] TERI/	C210.4	Will understand the methods of study on geological structure
	C210 MAT	C210.5	Will understand the application of geological investigation in projects such as dams, tunnels, bridges, roads, airport and harbor
	C211 - STRENGTH OF MATERIALS (CE6402)	C211.1	Determine the strain energy and compute the deflection of determinate beams, frames and trusses using energy principles.
		C211.2	Analyze propped cantilever, fixed beams and continuous beams using theorem of three moment equation for external loadings and support settlements.
28		C211.3	Find the load carrying capacity of columns and stresses induced in columns and cylinders
		C211.4	Determine principal stresses and planes for an element in three dimensional state of stress and study various theories of failure
		C211.5	Determine the stresses due to Unsymmetrical bending of beams, locate the shear center, and find the stresses in curved beams.
	RING	C212.1	Apply their knowledge of fluid mechanics in addressing problems in open channels
	LIED GINEER 3)	C212.2	Able to identify a effective section for flow in different cross sections
29	2 - APH LIC EN (CE640	C212.3	To solve problems in uniform, gradually and rapidly varied flows in steady state conditions
	C21 RAUJ	C212.4	Understand the principles, working and application of turbines
	ДХН	C212.5	Understand the principles, working and application of pumps
	11-5	C213.1	Able to acquire knowledge control survey methodology
	YING (†	C213.2	Able to acquire knowledge in survey adjustment
30	IRVE E6404	C213.3	To acquire knowledge in total station surveying
	3 - SU (CI	C213.4	Understand various GPS surveying methods and processing techniques used in GPS

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	C21	C213.5	Understand the advantages of electronic surveying over conventional surveying methods	
	CHANICS (	C214.1	classify the soil and assess the engineering properties, based on index properties	
		C214.2	Understand the stress concepts in soils	
31	L ME E6405	C214.3	Understand and identify the settlement in soils	
	4 - SOII (C)	C214.4	Determine the shear strength of soil	
	C21	C214.5	Analyze both finite and infinite slopes.	
	OF 5411)	C215.1	The students will have the required knowledge in the area of testing of materials and components of structural elements experimentally.	
	NGTH UALS CF(CE(	C215.2	To expose the students to the testing of different materials under the action of various forces	
32	STRE ATER ATOR	C215.3	To expose the students to the testing of test on cement	
	215 - M. BOR/	C215.4	Determine the Compression test on wood	
	C2 LAI	C215.5	Determine the tension test on mild steel rod	
	AULIC NG NRY	C216.1	The students will be able to measure flow in pipes and determine frictional losses.	
33	YDR/ IEERI RATC 8412	C216.2	The students will be able to develop characteristics of pumps and turbines	
	C216 - HY ENGIN LABOF (CE	C216.3	Able to verify the principles of characteristics of gear pump	
		C216.4	Able to verify the principles of characteristics of centrifugal pumps	
	EYING AL-II 3)	C217.1	Determine the heights, distances, and gradient using trigonometric methods	
		C217.2	Calculate the height of an inaccessible point by system of tacheometry	
34	SURV CTIC E641	C217.3	Compute the Reduced Levels Using Various Methods Of Levelling	
	17 - S PRA( (C	C217.4	measure horizontal angles and vertical angles by using theodolite	
	C2] I	C217.5	Prepare LS ,CS for the road works	
	AL 01)	C301.1	Determine the forces in the members of the statically indeterminate structures.	
	TUR/ CE65(	C301.2	Sketch the influence line diagram for static structures due to moving loads.	
35	RUC S I ((	C301.3	Determine the thrust of the various structural forms of arches.	
	01 - ST	C301.4	Calculate the moment of statically indeterminate structures using slope deflection methods.	
	C3 AN	C301.5	Compute the moment of statically indeterminate structures using moment distribution methods.	
	NO	C302.1	Explain the soil exploration methods.	
	DATI RING 2)	C302.2	Calculate the Bearing Capacity and settlement of the soils.	
36	2 - FOUNE ENGINEER (CE6502	C302.3	Compute the Proportioning of Shallow Foundation.	
		C302.4	Calculate the load carrying capacity of Pile foundation.	

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	C30	C302.5	Compute the earth pressures in retaining walls.	
37	303 - DNMENTAL IEERING -I E 6503)	C303.1	Know about the water supply system from the basic need of water source.	
		C303.2	Explain the types of conveyance system.	
		C303.3	Prepare the design of water treatment plant.	
	o IVIR( NGIN (C	C303.4	Knows the about the advanced water treatment concerning health aspects.	
	EN	C303.5	Illustrate the water supply system for a building.	
	5504	C304.1	Know about the concept of highway planning and alignment	
	WAY (CE (	C304.2	Explain the geometric design of highways	
38	HIGH UNG (	C304.3	Prepare the design of flexible pavement and rigid pavement	
	04 - F NEER	C304.4	Explain the importance of highway materials and its testing	
	C3 ENGIN	C304.5	Solves the pavement repair problems and also summarizes the pavement maintenance systems.	
	tette 5)	C305.1	Prepare the design of Reinforced Concrete slab and beam by working stress method.	
	GN OF CONCR CE 650	C305.2	Select the suitable reinforcement for Flexural members by Limit state method.	
39	DESI CED ( UTS ((	C305.3	Prepare the design of RC Members for combined bending, Shear and Torsion.	
	C305 - NFORC LEMEN	C305.4	Select the suitable reinforcement for Compression members.	
	REINEL	C305.5	Prepare the design of various types of Reinforced Concrete footings.	
	C306 - CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICES (CE 6506 )	C306.1	Explain the concept of concrete mix design	
		C306.2	List the sequence of construction activities and knows about the masonry works	
40		C306.3	Summarizes the techniques of underground structures construction and under water constructions`	
		C306.4	Compare the various techniques involved in super structure construction	
		C306.5	Identify the suitable equipments for different types of construction works	
	TION BASED	C307.1	Plan, organize, write and present project reports.	
41	C307 - AUNICA SKILLS- ATORY CE8512)	C307.2	Technical papers in the frame of the scientific method	
	COMN LABOR (	C307.3	Establish themselves through communication skills in	
	NICS 5511)	C308.1	Determine the index properties of the soil which are an indicative of the engineering properties of soil.	
42	MECHA RY (CE(	C308.2	Obtain the field density of the soil and its moisture content and to Find out its dry density and optimum moisture content of the soil	
42	OIL 1 ATO	C308.3	Determine the permeability characteristics of the soil.	
	38 - S BOR	C308.4	Find out the consolidation characteristics and its settlement properties.	

S.NO	COURSE NAME	COURSE OUT COMES		
	C3 L^	C308.5	Determine the shear strength of different types of soil .	
43	EY 12)	C309.1	measure the area and distance between the points by compass and plane table	
	09 - SURV MP (CE65	C309.2	Calculate the azimuth of a heavenly body	
		C309.3	Measure the height and distance by theodlite	
	C3(	C309.4	Prepare contour map for the given area	
	TE Y	C310.1	Construct the design of Cantilever and Counter fort Retaining Wall.	
	IN OF DNCRE ASONR CE6601	C310.2	Prepare the design of Rectangular and circular water tank by working stress method.	
44	DESIG ED CC K M/ RES (	C310.3	Prepare the design of staircase and Flat slab.	
	C310 - D INFORCH ND BRIC IRUCTUI	C310.4	Apply the knowledge of Virtual work method in designing Rectangular, Square, Triangular and Circular slabs.	
	RE	C310.5	Apply the codal provision of design procedure for Axially loaded Brick wall.	
	II SISYJ	C311.1	To analyze the indeterminate structure like pin jointed plane frames, continuous beams and rigid jointed plane frames by matrix flexibility method.	
	AL ANAI 502)	C311.2	To impart the indeterminate structure like pin jointed plane frames, continuous beams and rigid jointed plane frames by matrix stiffness method.	
45	JCTUR. (CE66	C311.3	To make the student knowledge about the finite element analysis of a structural elements.	
	C311- STRU	C311.4	To understand the concepts of plastic analysis of structure.	
		C311.5	To know the knowledge on suspension bridge and stiffening girders in bridge structures.	
	C312 - DESIGN OF STEEL STRUCTURES (CE6603)	C312.1	Enumerate the Design of steel connection using rivet, bolt and welding	
		C312.2	Prepare the design of tension and member	
46		C312.3	Prepare the design of compression member	
		C312.4	Prepare the design of laterally supported and unsupported beams	
		C312.5	Prepare the design of truss component members	
	YS OUR j	C313.1	Describe the role of railways in national development	
	WA ARB ARB RINC 4 )	C313.2	Explain the concept of railway planning and design	
47	RAII IS, H INEE E660	C313.3	Summarize the techniques of railway track construction and maintenance	
	313 - POR ENG	C313.4	Explain the airport planning and designing	
	CAIR	C313.5	Prepare the air traffic control plans	
	VTAL (6605)	C314.1	An ability to estimate sewage generation and design sewer system including sewage pumping stations	
		C314.2	The required understanding on the characteristics and composition of sewage, self- purification of streams	

S.NO	COURSE NAME		COURSE OUT COMES
48	C314 - ENVIRG ENGINEERING	C314.3	An ability to perform basic design of the unit operations and processes that are used in sewage treatment
		C314.4	Understand the standard methods for disposal of sewage.
		C314.5	Gain knowledge on sludge treatment and disposal
	002)	C315.1	An understanding of the nature and characteristics of air pollutants, noise pollution and basic concepts of air quality management
	RET) (CE6	C315.2	Ability to identify, formulate and solve air and noise pollution problems
49	- CONC	C315.3	Ability to design stacks and particulate air pollution control devices to meet applicable standards.
	C315 CHN0	C315.4	Ability to select control equipments.
	TE	C315.5	Ability to ensure quality, control and preventive measures.
	AL 11)	C316.1	Determine the PH of and turbidity and hardness of water.
	AENT NG DE66	C316.2	Determine the content of iron, fluoride, residual chloride.
50	tONN EERIN RY ((	C316.3	Determine Ammonia Nitrogen, sulphate.
30	NVIR GINH ATO	C316.4	Determine the optimum coagulant dosage.
	6 - El En Bor	C316.5	Determine available chlorine in bleaching powder.
	C31 LA	C316.6	Determine B.O.D,C.O.D
	C317 - CONCRETE AND HIGHWAY ENGINEERING LABORATORY (CE6612)	C317.1	Predict the quality of coarse aggregate used in concrete.
		C317.2	Measure the workability of the fresh concrete
51		C317.3	calculate characteristics strength of the given concrete.
		C317.4	Develop sufficient idea on practice and procedure of using bitumen in road works.
		C317.5	check the existing quality of conventional bituminous roads and
	AL ) (701)	C401.1	Explain the basic concepts of theory of vibration
	TUR/ AND AKE (CE6	C401.2	Predict the dynamic response of multi Degree of freedom system
52	CRUC MICS HQU RING	C401.3	Explain about causes of earthquake and its measurement
	401 - ST DYNAJ EART GINEEF	C401.4	Develop a skill to retrieve information from past structural failures and use it in future planning
	C4 ENC	C401.5	Apply various codal provisions related to the seismic design of buildings
	SED 5702)	C402.1	explain the concepts of prestress and its behaviour
	RES ETE (CEd	C402.2	Estimate the flexural strength for prestressed concrete structures
53	REST NCRI JRES	C402.3	Prepare the design of tank and pipe
	)2 - P CO UCTU	C402.4	Calculate the resultant stress for composite beam of prestressed concrete member
	C4( STR	C402.5	Explain the design concept of bridges using prestressed concrete structures
		C403.1	Estimate water requirements for irrigation and drinking

S.NO	COURSE NAME		COURSE OUT COMES
	ATER S AN FION RINC 81NC	C403.2	Estimate the consumptive use of water
54	C403 - WA SSOURCE IRRIGGA ENGINEEI (CE670	C403.3	Compute Irrigation efficiencies
		C403.4	Demonstrate the Diversion Head works
	R	C403.5	Summarize Irrigation methods
	υОн	C404.1	Explain about the National Housing Policies and sustainable houses of India.
	JSIN A AN MEN' 7)	C404.2	Develop the knowledge on housing programmes
55	- HOU NIN/ AGEI E 600	C404.3	Explain about the role of public and Non-Governmental organisation.
	.404 - LAN AAN, (C	C404.4	use the cost effective techniques and materials to reduce the project cost.
	0 4 4	C404.5	Prepare the housing project appraisal.
	ПD	C405.1	An understanding of the nature and characteristics of municipal solid wastes
	L SOL	C405.2	An understanding of the regulatory requirements regarding municipal solid waste management
56	CIPA NAG 6501)	C405.3	Ability to plan waste minimisation and design storage
	- MUNI STE MA (EN	C405.4	Ability to plan collection, transport, processing and disposal of municipal solid waste
	C405 - WAS	C405.5	To make the students conversant with different aspects of municipal solid wastes
	C406 - ESTIMATION AND QUANTITY SURVEYING (CE 6713)	C406.1	To estimate the material quantities
		C406.2	Prepare a bill of quantities
57		C406.3	Able to make specifications
		C406.4	Able to prepare tender documents
		C406.5	Able to prepare value estimates
	ED IG 1)	C407.1	The student acquires hands on experience in design
	R AID AFTIN (CE671	C407.2	The student acquires hands on experience in preparation of structural drawings for concrete
58	MPUTH AND DI TORY	C407.3	The student acquires hands on experience in preparation of structural drawings for steel structures
	07 - CO ESIGN / ABORA	C407.4	Preparation of structural drawings
	C4 DI	C407.5	Design of hemispherical bottomed steel tank
	2)	C408.1	prepare the plan of a Civil engineering structure.
	SIGN E871	C408.2	Utilize advanced software techniques / skills
59	- DE	C408.3	Apply various codal provisions to design a structure
	C408 OJE(	C408.4	Prepare the design for a structure

S.NO	COURSE NAME		COURSE OUT COMES		
	Ы	C408.5	prepare the detailed drawings for structural elements		
60	S OF T	C409.1	To enable the students to study the evolution of Management		
	PLES AEN (1)	C409.2	To study the functions and principles of management		
	AGEN IG685	C409.3	To learn the application of the principles in an organization		
	9 - PF MAN, (N	C409.4	Basic knowledge on international aspect of management		
	C400	C409.5	Able to have clear understanding of managerial functions like planning		
	16)	C410.1	The student shall able to design some of prefabricated elements		
	BRICAT	C410.2	Can able to gain knowledge on various construction methods in using these element		
61	REFA	C410.3	To gain knowledge on various design principles		
	0 - PI RUCT	C410.4	To gain knowledge on various joints used in these structural members		
	C41 STF	C410.5	Able to design the structure to carry abnormal loads		
	C411 - REPAIR AND RAHABILITATION OF STRUCTURES (CE6021)	C411.1	The principles of Atmospheric dynamics and transport of heat and air mass		
		C411.2	The develop simple climate models and to predict climate change		
62		C411.3	To gained knowledge on quality of concrete		
		C411.4	To gained knowledge on repairing of structures		
		C411.5	To gained knowledge on demolition procedures		
	36811)	C412.1	On Completion of the project work students will be in a position to take up any challenging practical problems and find solution by formulating proper methodology		
	)RK (C	C412.2	To develop the ability to solve a specific problem		
63	ECT WC	C412.3	To train the students in preparing project reports and to face reviews and viva voce examination.		
	- PROJ	C412.4	Prepare Technical reports		
	C413	C412.5	Solve a specific problem		