Course Code &Name: C201 – MA6351 TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS

REGULATION: R 2013

YEAR/SEM: II / III

COURSE OUTCOMES

C201.1	**Ap**	Identify the partial differential equations of both homogeneous and non-homogeneous type and understand how to solve standard partial differential equations.
C201.2	**An**	Solve differential equations using Fourier series analysis which plays a vital role in engineering applications..
C201.3	**Ev**	Solve one and two dimensional heat flow problems and one dimensional wave equations using Fourier series techniques.
C201.4	**An**	Analyze the mathematical principles on transforms and partial differential equations would provide them the ability to solve some of the physical problems of engineering
C201.5	**Ap**	Apply the mathematical tools for the solutions of partial differential equations by using z-transform techniques

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
C201.1	2	3	-	-	2	-	-	-	-	-	-	-	2	-
C201.2	3	3	2	2	3	2	-	-	-	-	-	2	2	-
C201.3	2	2	-	-	2	-	-	-	-	-	-	-	2	-
C201.4	3	3	2	1	3	1	-	-	-	-	-	-	2	2
C201.5	3	2	3	2	3	2	-	-	-	-	-	2	2	-
C201	**2.6**	**2.6**	**2.3**	**1.6**	**2.6**	**1.6**	**-**	**-**	**-**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C202 – GE6351 ENVIRONMENTAL SCIENCE AND ENGINEERING

REGULATION: R 2013

YEAR/SEM: II/ III

COURSE OUTCOMES

C202.1	**Un**	**Explain** the environment, ecosystem and biodiversity
C202.2	**Ap**	**Outline** the environmental pollution, related problems and control methods.
C202.3	**Ap**	**Summarize** the natural resources and the effects of its over-exploitation.
C202.4	**Ap**	**Interpret** social problems and sustainable development.
C202.5	**An**	**Illustrate** population related environmental and health issues using Information Technology.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C202.1	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C202.2	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C202.3	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C202.4	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C202.5	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C202	**3**	**3**	**2**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C203 – CE6301- ENGINEERING GEOLOGY

REGULATION: R 2013

YEAR/SEM: II/ III

COURSE OUTCOMES

C203.1	**Un**	To summarize the importance of geological knowledge such as earth, earthquake, volcanism and the action of various geological agencies
C203.2	**Un**	To get basics knowledge on properties of minerals.
C203.3	**Un**	To Gain relate the types of rocks, their distribution and uses.
C203.4	**Un**	To interpret the study on geological structure.
C203.5	**Un**	To make use of geological investigation in projects such as dams, tunnels, bridges, roads, airport and harbor.

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
C203.1	-	2	2	-	2	-	-	2	-	-	-	2	-	-
C203.2	-	2	2	-	2	-	-	2	-	-	-	2	-	-
C203.3	-	2	2	-	2	-	-	2	-	-	-	2	-	-
C203.4	-	2	2	-	2	-	-	2	-	-	-	2	-	-
C203.5	-	2	2	-	2	-	-	2	-	-	-	2	2	-
C203	**-**	**2**	**2**	**-**	**2**	**-**	**-**	**2**	**-**	**-**	**-**	**2**	**2**	**-**

Course Code &Name: C204 – CE6302- MECHANICS OF SOLIDS

REGULATION: R 2013

YEAR/SEM: II/ III

COURSE OUTCOMES

C204.1	**Un**	To outline the concepts of stress and strain in the structure.
C204.2	**An**	To analyse the shear force and bending moments in beams using various load and support conditions.
C204.3	**An**	To analyse the deflection in beams using various methods.
C204.4	**An**	To analyse the shaft and springs for its maximum energy storage capacity.
C204.5	**An**	To analyse the trusses using various methods

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
C204.1	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C204.2	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C204.3	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C204.4	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C204.5	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C204	**3**	**3**	**2**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C205 – CE 6303 - MECHANICS OF FLUIDS

REGULATION: R 2013

YEAR/SEM: II/ III

COURSE OUTCOMES

C205.1	**Un**	To outline the properties of fluids in statics.
C205.2	**Un**	To relate the properties of fluids in kinematics and dynamics.
C205.3	**Un**	To determine the minor and major losses in carrying capacity of pipe using various formulas.
C205.4	**Un**	To determine the pressure and forces in submerged bodies.
C205.5	**An**	To relate the various parameters based on dimension analysis.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C205.1	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C205.2	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C205.3	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C205.4	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C205.5	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C205	**3**	**2**	**2**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C206 – CE 6306 - SURVEYING -I

REGULATION: R 2013

YEAR/SEM: II/ III

COURSE OUTCOMES

C205.1	**Un**	To summarize the concepts of chain surveying.
C205.2	**Un**	To understand the concepts of bearings and necessity of plane table surveying
C205.3	**Un**	To impart the knowledge on the levelling and understand various methods to carry out different types of levelling.
C205.4	**Un**	To apply the levelling concepts to plot contour maps.
C205.5	**Un**	To outline the uses of theodolite in surveying and find out the heights and distances using theodolite.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C205.1	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C205.2	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C205.3	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C205.4	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C205.5	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C205	**3**	**2**	**2**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**3**	**2**

Course Code &Name: C207 – CE 6311 - SURVEY PRACTICAL I

REGULATION: R 2013

YEAR/SEM: II/ III

COURSE OUTCOMES

C207.1	To carry out chain surveying using all the accessories.
C207.2	To survey the given area using compass and find out the interior angles.
C207.3	Make use of plane table and analyse two point and three point problems.
C207.4	Make use of levelling instrument and carry out fly levels using Dumpy level.
C207.5	By carrying out the levels plot the contour map and impart the knowledge on the theodolite.

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
C207.1	3	3	-	2	2	-	-	-	-	2	2	3	3	-
C207.2	3	3	-	2	2	-	-	-	-	2	2	3	3	-
C207.3	3	3	-	2	2	-	-	-	-	2	2	3	3	-
C207.4	3	3	3	3	2	-	-	-	-	2	2	3	3	-
C207.5	3	3	3	3	3	-	-	-	-	2	2	3	3	2
C207	**3**	**3**	**3**	**2.4**	**2.2**	**-**	**-**	**-**	**-**	**2**	**2**	**3**	**3**	**2**

Course Code &Name: C208 – CE 6312 - COMPUTER AIDED BUILDING DRAWING

REGULATION: R 2013

YEAR/SEM: II/ III

COURSE OUTCOMES

C208.1	To outline the commands of functions different commands of Auto CADD.
C208.2	To understand the principles of planning, orientation and complete panelled and glazed doors and windows.
C208.3	To plan and sketch the buildings with load bearing walls.
C208.4	To plan and sketch the building with sloping roofs and R.C.C framed structures.
C208.5	To plan and construct north light building structures as per National Building Code.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C208.1	2	2	2	2	3	-	-	-	-	-	2	3	3	2
C208.2	2	2	2	2	3	-	-	-	-	-	2	3	3	2
C208.3	2	2	2	2	3	-	-	-	-	-	2	3	3	2
C208.4	2	2	2	2	3	-	-	-	-	-	2	3	3	2
C208.5	2	2	2	2	3	-	-	-	-	-	2	3	3	2
C208	**2**	**2**	**2**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**2**	**3**	**3**	**2**

Course Code &Name: C209 – MA6459 NUMERIAL METHODS

REGULATION: R 2013

YEAR/SEM: II/ IV

COURSE OUTCOMES

C209.1	To solve a set of algebraic representing steady state models formed in engineering problems.
C209.2	To deals with interpolation and approximation for the applications of finite elements analysis.
C209.3	To find the trend information from discrete data set through numerical differentiation and summary information through numerical integration.
C209.4	To predict the system dynamic behavior through solution of ODEs modeling the system.
C209.5	To solve PDE representing spatial and temporal variations in physical systems through numerical methods.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C209.1	3	2	-	2	2	3	-	-	-	2	-	1	2	-
C209.2	3	2	-	2	2	3	-	-	-	2	-	1	2	-
C209.3	3	2	-	2	2	3	-	-	-	2	-	1	2	-
C209.4	3	2	-	2	2	3	-	-	-	2	-	1	2	2
C209.5	3	2	-	2	2	3	-	-	-	2	-	1	2	-
C209	**3**	**2**	**-**	**2**	**2**	**3**	**-**	**-**	**-**	**2**	**-**	**1**	**2**	**2**

Course Code &Name: C210 – CE6401 CONSTRUCTION MATERIALS

REGULATION: R 2013

YEAR/SEM: II/ IV

COURSE OUTCOMES

C210.1	To outline the characteristics of different materials used in the construction of building.
C210.2	To relate the properties and uses of different binding materials used in the construction.
C210.3	To impart knowledge on the different properties of concrete mix.
C210.4	To summarize the applications of timbers and other materials
C210.5	To outline the modern material for construction materials and state its uses.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C210.1	-	3	3	2	3	-	-	2	-	-	-	3	3	2
C210.2	-	3	3	2	3	-	-	2	-	-	-	3	3	2
C210.3	-	3	3	2	3	-	-	2	-	-	-	3	3	2
C210.4	-	3	3	2	3	-	-	2	-	-	-	3	3	2
C210.5	-	3	3	2	3	-	-	2	-	-	-	3	3	2
C210	**-**	**3**	**3**	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**-**	**3**	**3**	**2**

Course Code &Name: C211 – CE 6402 STRENGTH OF MATERIALS

REGULATION: R 2013

YEAR/SEM: II/ III

COURSE OUTCOMES

C211.1	To understand the concepts of energy principles using different theorems
C211.2	To analyse the indeterminate Beams using different end conditions.
C211.3	To apply the Eulers and Rankine formula to analyse the columns and cylinders
C211.4	To understand the stress in three dimensions and theories of failures.
C211.5	To analyse the unsymmetrical bending of beams and shear centre of curved beams by Winkler Bach formula.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C211.1	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C211.2	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C211.3	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C211.4	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C211.5	3	3	2	2	2	-	-	-	-	-	-	2	2	2
C211	**3**	**3**	**2**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C212 – CE6403 APPLIED HYDRAULIC ENGINEERING

REGULATION: R 2013

YEAR/SEM: II/ IV

COURSE OUTCOMES

C212.1	To outline the types of flow and analyse velocity of distribution in open channel flow using different equations.
C212.2	To understand the hydraulic profile of gradually varied flow by different methods.
C212.3	To outline the application of energy equation in Rapidly varied flow to identify the critical depth and velocity.
C212.4	To summarize the classifications of turbines and analyse their performance.
C212.5	To outline the necessity of pumps and analyse the efficiency of different pumps.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C212.1	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C212.2	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C212.3	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C212.4	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C212.5	3	2	2	2	2	-	-	-	-	-	-	2	2	2
C212	**3**	**2**	**2**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C213 – CE 6404 SURVEYING II

REGULATION: R 2013

YEAR/SEM: II/ IV

COURSE OUTCOMES

C213.1	To understand the uses of control station and triangulation systems of surveying.
C213.2	To classify the errors and adjust the errors in the triangulation networks of survey.
C213.3	To understand the working principles of modern surveying equipment.
C213.4	To summarize the concepts of GPS surveying.
C213.5	To outline the different types of surveying work in major projects.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C213.1	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C213.2	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C213.3	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C213.4	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C213.5	3	2	2	2	3	-	-	-	-	-	-	2	3	2
C213	**3**	**2**	**2**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**3**	**2**

Course Code &Name: C214 – CE6405 SOIL MECHANICS

REGULATION: R 2013

YEAR/SEM: II/ IV

COURSE OUTCOMES

C214.1	**AL**	**Analyze** the classification of soils and assess the engineering properties
C214.2	**U**	**Understand** the stress concepts in soils
C214.3	**U**	**Understand** and identify the settlement's in soil
C214.4	**E**	Determine the shear strength of soil
C214.5	**AL**	**Analyze** the both finite and infinite slopes

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
C214.1	3	3	3	1	2	2	-	2	2	3	-	3	3	3
C214.2	3	3	3	2	2	2	-	3	2	3	-	3	3	3
C214.3	3	3	3	2	2	2	-	2	2	2	-	3	3	3
C214.4	3	3	3	2	2	2	-	2	2	2	-	3	3	3
C214.5	3	3	3	2	2	2	-	3	2	2	-	3	3	3
C214	**3**	**3**	**3**	**2**	**2**	**2**	**-**	**2**	**2**	**2**	**-**	**3**	**3**	**3**

Course Code &Name: C215 – CE 6411 STRENGTH OF MATERIALS LABORATORY

REGULATION: R 2013

YEAR/SEM: II/ IV

COURSE OUTCOMES

C215.1	**Test** for stress values under tension and double shear tests.
C215.2	**Examine** the modulus of rigidity and angle of twist under torsional loading
C215.3	**Examine** the hardness using Rockwell and Brinell hardness machines and its microstructure
C215.4	**Inspect** the stiffness of helical springs under compression loading
C215.5	**Test** for impact and Deflection properties.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C215.1	3	3	1	-	-	-	-	-	-	-	-	-	3	3
C215.2	3	3	3	-	-	-	-	-	-	2	-	-	3	3
C215.3	3	3	3	-	-	-	-	-	-	-	-	-	3	3
C215.4	3	3	3	-	-	-	-	-	-	-	-	-	3	3
C215.5	3	3	3	-	-	-	-	-	-	-	-	-	3	3
C215	**3**	**3**	**2.6**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**3**

Course Code &Name: C216 – CE 6412 HYDRAULIC ENGINEERING LABORATORY

REGULATION: R 2013

YEAR/SEM: II/ IV

COURSE OUTCOMES

C216.1	To calibration of Rota meter.
C216.2	**Identify** the coefficient of discharge using Orifice meter and Venturimeter.
C216.3	**Analyze** the friction factor for flow through pipes and
C216.4	**Examine** the performance characteristics of various pumps.
C216.5	**Experiment** with turbines to find the performance characteristics.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C216.1	3	-	-	-	-	-	-	3	3	-	-	2	3	3
C216.2	3	3	-	-	-	-	-	3	3	3	-	-	3	3
C216.3	3	3	-	-	-	-	-	3	3	3	-	-	3	3
C216.4	3	3	-	-	-	2	-	3	3	3	-	2	3	3
C216.5	3	3	-	-	-	2	-	3	3	3	-	2	3	3
C216	**3**	**3**	**0**	**3**	**0**	**2**	**0**	**3**	**3**	**3**	**0**	**2**	**3**	**3**

Course Code &Name: C217 – CE 6413 SURVEY PRATICAL - II

REGULATION: R 2013

YEAR/SEM: II/ IV

COURSE OUTCOMES

C217.1	To measure the angles by reiteration and repetition method using theodolite.
C217.2	To conduct traversing survey using theodolites.
C217.3	To find out the heights and distances of triangulation station by single plane method.
C217.4	To set out works - simple curve, transition curve road project and foundation marking of building.
C217.5	To survey the field by using total station.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C217.1	3	3	-	2	2	-	-	-	-	2	2	3	3	-
C217.2	3	3	-	2	2	-	-	-	-	2	2	3	3	-
C217.3	3	3	-	2	2	-	-	-	-	2	2	3	3	-
C217.4	3	3	3	3	2	-	-	-	-	2	2	3	3	-
C217.5	3	3	3	3	3	-	-	-	-	2	2	3	3	2
C217	**3**	**3**	**3**	**2.4**	**2.2**	**-**	**-**	**-**	**-**	**2**	**2**	**3**	**3**	**2**

Course Code &Name: C301 – CE6501 STRUCTURAL ANALYSIS –I
REGULATION: R 2013

YEAR/SEM: III / V

COURSE OUTCOMES

C301.1	**Un**	Classify and determine the statically determinate and indeterminate structure.
C301.2	**An**	Apply & Analyze the concept while considering the influence lines for deciding the critical forces and sections
C301.3	**Un**	Classify the types of arches analyse them for various support conditions
C301.4	**Ap**	Identify, analyze, & solve problems using slope deflection method.
C301.5	**Ap**	Make use of moment distribution method to analyse the beams and frames

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C301.1	3	3	2	2	2	2	-	2	-	-	-	3	2	2
C301.2	3	3	2	2	2	2	-	2	-	-	-	3	2	2
C301.3	3	3	2	2	2	2	-	2	-	-	-	3	2	2
C301.4	3	3	2	2	2	2	-	2	-	-	-	3	2	2
C301.5	3	3	2	3	2	2	-	2	-	-	-	3	2	2
C301	**3**	**3**	**2**	**2.2**	**2**	**2**	**-**	**2**	**-**	**-**	**-**	**3**	**2**	**2**

Course Code &Name: C302 – CE6502 FOUNDATION ENGINEERING
REGULATION: R 2013

YEAR/SEM: III / V

COURSE OUTCOMES

C302.1	Understand the importance of soil investigation and determine various soil properties.
C302.2	Understand the significance and determine the load bearing capacity for shallow and deep foundations.
C302.3	Understand the different type of footings and its application.
C302.4	To impart knowledge on pile foundation and the uses.
C302.5	Understand the concept of earth pressure behind earth retaining structures for different conditions.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C302.1	2	3	-	2	-	2	-	-	-	-	-	3	3	2
C302.2	2	3	-	2	-	2	-	-	-	-	-	3	3	2
C302.3	2	3	-	2	-	2	-	-	-	-	-	3	3	2
C302.4	2	3	-	2	-	2	-	-	-	-	-	3	3	2
C302.5	2	3	-	2	-	2	-	-	-	-	-	3	3	2
C302	**2**	**3**	**-**	**2**	**-**	**2**	**-**	**-**	**-**	**-**	**-**	**3**	**3**	**2**

Course Code &Name: C303 – CE6503 ENVIRONMENTAL ENGINEERING -1
REGULATION: R 2013

YEAR/SEM: III / V

COURSE OUTCOMES

C303.1	To Summarize the sources and characteristics of water
C303.2	To impart the knowledge on the water transmission systems and appurtenances used to convey the water from source to the destination.
C303.3	To understand the principles and functions of primary treatment of water treatment plant.
C303.4	To understand the membrane system used in water treatment.
C303.5	To plan the proper distribution system for a water supply project and also the alternatives on basis of chosen selection criteria

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C303.1	-	-	2	2	2	2	-	-	2	-	-	-	-	-
C303.2	-	-	2	2	2	2	-	-	2	-	-	2	2	2
C303.3	-	-	2	2	2	2	-	-	2	-	-	2	2	2
C303.4	-	-	2	2	2	2	-	-	2	-	-	2	2	2
C303.5	-	-	2	2	2	2	-	-	2	-	-	2	2	2
C303	**-**	**-**	**2**	**2**	**2**	**2**	**-**	**-**	**2**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C304 – CE6504 HIGHWAY ENGINEERING
REGULATION: R 2013

YEAR/SEM: III / V

COURSE OUTCOMES

C304.1	To summarize planning and aligning of highway.
C304.2	To Analyse the Geometric design of highways.
C304.3	Apply the acquired knowledge on the design flexible and rigid pavements.
C304.4	Recall the Highway construction materials, properties, testing methods.
C304.5	To illustrate the concept of pavement management system, evaluation of distress and maintenance of pavements.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C304.1	3	3	2	-	2	2	-	2	-	-	-	2	3	2
C304.2	3	3	2	-	2	2	-	2	-	-	-	2	3	2
C304.3	3	3	2	-	2	2	-	2	-	-	-	2	3	2
C304.4	3	3	2	-	2	2	-	2	-	-	-	2	3	2
C304.5	3	3	2	-	2	2	-	2	-	-	-	2	3	2
C304	**3**	**3**	**2**	**-**	**2**	**2**	**-**	**2**	**-**	**-**	**-**	**2**	**3**	**2**

Course Code &Name: C305 – CE 6505 DESIGN OF REINFORCED CONCRETE ELEMENTS
REGULATION: R 2013

YEAR/SEM: III / V

C305.1	To analyze the concrete slab by using working stress method.
C305.2	To analyse the basic reinforced concrete structures like slabs, beams, columns, and footings by using the limit state method.
C305.3	To develop the reinforced concrete slabs and beams for shear and torsion by limit state method
C305.4	Make use of limit state method and design the concrete column for the structure.
C305.5	To analyse all the loads acting on the footing and design the footing by considering the factor of safety.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C305.1	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C305.2	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C305.3	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C305.4	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C305.5	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C305	**3**	**3**	**3**	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**-**	**2**	**3**	**3**

Course Code &Name: C306 – CE 6506 CONSTRUCTION TECHNIQUES, EQUPIMENTS AND PRACTICE
REGULATION: R 2013

YEAR/SEM: III / V

COURSE OUTCOMES

C306.1	To summarize the different construction techniques and structural systems.
C306.2	To compare various techniques and practices on masonry construction, flooring, and roofing.
C306.3	To Plan the requirements for substructure construction.
C306.4	To summarize the methods and techniques involved in the construction of various types of super structures.
C306.5	To Select, maintain and operate hand and power tools and equipment used in the building construction sites.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C306.1	-	2	-	-	2	2	-	2	-	-	-	2	2	2
C306.2	-	2	-	-	2	2	-	2	-	-	-	2	2	2
C306.3	-	2	-	-	2	2	-	2	-	-	-	2	2	2
C306.4	-	2	-	-	2	2	-	2	-	-	-	2	2	2
C306.5	-	2	-	-	2	2	-	2	-	-	2	2	2	2
C306	**-**	**2**	**-**	**-**	**2**	**2**	**-**	**2**	**-**	**-**	**2**	**2**	**2**	**2**

Course Code &Name: C307 – GE 6674 COMMUNICATION AND SOFT SKILLS – LABORATORY BASED
REGULATION: R 2013

YEAR/SEM: III / V

COURSE OUTCOMES

C307.1	**Develop** communicative competence in English with specific reference to listening and speaking.
C307.2	**Evaluate** learners' ability in reading and writing to **communicate** effectively
C307.3	**Improve** the prospects of the learners for success in competitive examinations
C307.4	**Examine** the learners' ability clearly to shine in the interviews.
C307.5	**Improve** soft skills, creative thinking, team work and sustainability in workplace.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C307.1	-	-	-	-	-	-	-	-	2	3	-	2	2	2
C307.2	-	-	-	-	-	-	-	-	-	3	-	2	2	2
C307.3	-	-	-	2	-	-	-	-	-	3	-	2	2	2
C307.4	-	-	-	2	-	-	-	-	-	3	-	2	2	2
C307.5	-	-	-	-	-	-	-	-	2	3	-	2	2	2
C307	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**3**	**0**	**2**	**2**	**2**

Course Code &Name: C308 - CE6511 SOIL MECHANICS LABORTARY
REGULATION: R 2013

YEAR/SEM: III / V

COURSE OUTCOMES

C308.1	To analyse the index properties of soil.
C308.2	To examine the density of soil in the field using sand replacement and core cutter method.
C308.3	To inspect the moisture content in the soil using the proctor compaction test.
C308.4	To examine the permeability of soil using different methods.
C308.5	To test the soil to know its various engineering properties.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C308.1	3	2	-	2	-	2	2	-	-	-	-	2	3	3
C308.2	3	2	-	2	-	2	2	-	-	-	-	2	3	3
C308.3	3	2	-	2	-	2	2	-	-	-	-	2	3	3
C308.4	3	2	-	2	-	2	2	-	-	-	-	2	3	3
C308.5	3	2	-	2	-	2	2	-	-	-	-	2	3	3
C308	3	2	-	2	-	2	2	-	-	-	-	2	3	3

Course Code &Name: C309 – CE 6512 SUREY CAMP
REGULATION: R2013

YEAR/SEM: III / V

COURSE OUTCOMES

C309.1	An ability to function in multidisciplinary teams.
C309.2	To develop a skill to communicate (both oral and written) effectively
C309.3	Ability to understand the concepts of surveying and plotting topographical maps of various terrains as well as to analyze and interpret data from these maps.
C309.4	Recognition of the need for, and ability to engage in life-long learning.
C309.5	To impart knowledge on the contour mapping.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C309.1	3	2	3	2	3	2	-	-	-	-	-	2	3	2
C309.2	3	2	3	2	3	2	-	-	-	-	-	2	3	2
C309.3	3	2	3	2	3	2	-	-	-	-	-	2	3	2
C309.4	3	2	3	2	3	2	-	-	-	-	-	2	3	2
C309.5	3	2	3	2	3	2	-	-	-	-	-	2	3	2
C309	**3**	**2**	**3**	**2**	**3**	**2**	**-**	**-**	**-**	**-**	**-**	**2**	**3**	**2**

Course Code &Name: C310 – CE6601 DESIGN OF REINFORCED CONCRETE AND BRICK MASONARY STRUCTURES

REGULATION: R 2013

YEAR/SEM: III / VI

COURSE OUTCOMES

C310.1	To design the reinforced concrete counter fort and cantilever retaining walls.
C310.2	To analyse the water tanks resting on ground, underground and overhead water tanks
C310.3	To construct the reinforced concrete staircase, flat slab and bridges.
C310.4	Make use of yield line theory to design the slab.
C310.5	To analyse the masonry walls for axial load and eccentrically load conditions

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C310.1	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C310.2	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C310.3	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C310.4	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C310.5	3	3	3	2	3	-	-	2	-	-	-	2	3	3
C310	**3**	**3**	**3**	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**-**	**2**	**3**	**3**

Course Code &Name: C311-CE6602 – STRUCTURAL ANALYSIS – II

REGULATION: R 2013

YEAR/SEM: III / VI

COURSE OUTCOMES

C311.1	To distinguish statically determinate and redundant structural systems.
C311.2	To analyse beams and frames using stiffness matrix method.
C311.3	To analyse the space trusses and displacement functions by using the concept of Finite Element method.
C311.4	To impart knowledge on concept of plastic analysis and the method of analysing beams and rigid frames.
C311.5	To analyse the suspension bridges and cables with stiffening girder.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C311.1	3	3	2	2	2	2	-	2	-	-	-	3	2	2
C311.2	3	3	2	2	2	2	-	2	-	-	-	3	2	2
C311.3	3	3	2	2	2	2	-	2	-	-	-	3	2	2
C311.4	3	3	2	2	2	2	-	2	-	-	-	3	2	2
C311.5	3	3	2	3	2	2	-	2	-	-	-	3	2	2
C311	**3**	**3**	**2**	**2.2**	**2**	**2**	**-**	**2**	**-**	**-**	**-**	**3**	**2**	**2**

Course Code &Name: C312 - CE 6603 - DESIGN OF STEEL STRUCTURES

REGULATION: R 2013

YEAR/SEM: III / VI

COURSE OUTCOMES

C312.1	To impart knowledge on the limit state design and analyse the loads on different connections.
C312.2	To design the tension members for stress and shear.
C312.3	To understand the theory the of columns and design the compression members.
C312.4	To analyse the beams using the various end conditions.
C312.5	To analyse and design the roof trusses for industrial buildings.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C312.1	3	3	2	3	2	-	-	-	-	-	2	3	3	3
C312.2	3	3	2	3	2	-	-	-	-	-	2	3	3	3
C312.3	3	3	2	3	2	-	-	-	-	-	2	3	3	3
C312.4	3	3	2	3	2	-	-	-	-	-	2	3	3	3
C312.5	3	3	2	3	2	-	-	-	-	-	2	3	3	3
C312	**3**	**3**	**2**	**3**	**2**	**-**	**-**	**-**	**-**	**-**	**2**	**3**	**3**	**3**

Course Code &Name: C313 - CE6604 RAILWAYS, AIRPORTS AND HARBOUR ENGINEERING

REGULATION: R 2013

YEAR/SEM: III / VI

COURSE OUTCOMES

C313.1	Explain the function of various elements of railways.
C313.2	To plan and design various elements of railways.
C313.3	To impart knowledge on airport planning and layouts.
C313.4	To outline about the layout, design and construction of permanent way, runway and taxiway.
C313.5	To outline about the layout, design and construction of harbour.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C313.1	-	-	-	-	-	-	-	-	-	-	-	2	2	2
C313.2	2	2	2	-	-	-	-	-	-	-	-	2	2	2
C313.3	-	-	-	-	-	-	-	-	-	-	-	2	2	2
C313.4	2	2	2	-	-	-	-	-	-	-	-	2	2	2
C313.5	2	2	2	-	-	-	-	-	-	-	-	2	2	2
C 313	**2**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C314 - CE6605 ENVIRONEMNTAL ENGINEERING -II

REGULATION: R 2013

YEAR/SEM: III / VI

COURSE OUTCOMES

C314.1	To plan a sewerage system by summarizing the characteristics of the sewage.
C314.2	To construct the proper diameter of the pipe for sewage and select the good plumbing system for a building.
C314.3	To select the appropriate primary treatment process of a sewage.
C314.4	To summarize the advanced process in the waste water treatment.
C314.5	To understand the disposal methods of sewage and sludge treatment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C314.1	-	-	2	2	2	2	-	-	2	-	-	-	-	-
C314.2	-	-	2	2	2	2	-	-	2	-	-	2	2	2
C314.3	-	-	2	2	2	2	-	-	2	-	-	2	2	2
C314.4	-	-	2	2	2	2	-	-	2	-	-	2	2	2
C314.5	-	-	2	2	2	2	-	-	2	-	-	2	2	2
C314	**-**	**-**	**2**	**2**	**2**	**2**	**-**	**-**	**2**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: C315 - CE 6002 CONCRETE TECHNOLOGY

REGULATION: R 2013

YEAR/SEM: III / VI

COURSE OUTCOMES

C315.1	To impart knowledge on the properties of construction materials.
C315.2	To outline the uses of admixture used in the concrete.
C315.3	To understand the properties of concrete using various mix concrete.
C315.4	To impart knowledge on the properties of concrete.
C315.5	To impart knowledge on the special concrete.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C315.1	-	-	-	-	2	-	-	-	-	-	-	3	3	2
C315.2	-	-	-	-	2	-	-	-	-	-	-	3	3	2
C315.3	2	2	2	2	2	-	-	-	-	-	-	3	3	2
C315.4	2	2	-	-	2	-	-	-	-	-	-	3	3	2
C315.5	-	-	-	-	-	-	-	-	-	-	-	3	3	2
C 315	**2**	**2**	**-**	**-**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**3**	**2**

Course Code &Name: C316 – **CE6611 ENVIRONMENTAL ENGINEERING LABORATORY**

REGULATION: R 2013

YEAR/SEM: III / VII

COURSE OUTCOMES

C316.1	Analyse the nitrogen in the water and waste sample
C316.2	To determine the optimum coagulant dosage and settable solids
C316.3	To Analyse the NPK volume content in water sample
C316.4	To assess the heavy metal content in the water sample
C316.5	To impart knowledge on the characteristics and conduct treatability studies

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C316.1	-	2	-	2	-	-	-	2	-	--	-	2	-	-
C316.2	-	2	-	2	-	-	-	2	-	-	-	2	-	-
C316.3	-	2	-	2	-	-	-	2	-	-	-	2	-	-
C316.4	-	2	-	2	-	-	-	2	-	-	-	2	-	-
C316.5	2	2	-	2	-	-	-	2	-	-	2	2	2	2
C316	**2**	**2**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**-**	**2**	**2**	**2**	**2**

Course Code &Name: CE 317 - CE6612 CONCRETE AND HIGHWAY ENGINEERING LABORATORY

REGULATION: R 2013

YEAR/SEM: III / VI

COURSE OUTCOMES

C317.1	To impart knowledge principle and procedures of testing on fresh concrete.
C317.2	To inspect the properties on hardened concrete.
C317.3	To test the properties of aggregates.
C317.4	To analyse the physical test on the Bitumen.
C317.5	To inspect bitumen test to evolve inference.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C317.1	2	2	-	2	-	-	-	2	-	--	-	2	-	-
C317.2	2	2	-	2	-	-	-	2	-	-	-	2	-	-
C317.3	2	2	-	2	-	-	-	2	-	-	-	2	-	-
C317.4	2	2	-	2	-	-	-	2	-	-	-	2	-	-
C317.5	2	2	-	2	-	-	-	2	-	-	2	2	2	2
C317	**2**	**2**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**-**	**2**	**2**	**2**	**2**

Course Code &Name: CE6701 - STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING

REGULATION: R 2013
YEAR/SEM: IV / VII

COURSE OUTCOMES

C401.1	To summarize the theory of vibration load acting on the structure
C401.2	To analyse the structure for different degrees of freedom
C401.3	To summarize the types of seismic waves and tectonic plate theory
C401.4	To analyse the effects of earthquake on different types of structures
C401.5	To design the structure for seismic loading as per code provisions

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C401.1	3	3	3	3	2	2	-	-	-	-	2	3	3	3
C401.2	3	3	3	3	2	2	-	-	-	-	2	3	3	3
C401.3	3	3	3	3	2	2	-	-	-	-	2	3	3	3
C401.4	3	3	3	3	2	2	-	-	-	-	2	3	3	3
C401.5	3	3	3	3	2	2	-	-	-	-	2	3	3	3
C401	**3**	**3**	**3**	**3**	**2**	**2**	**-**	**-**	**-**	**-**	**2**	**3**	**3**	**3**

Course Code &Name: CE6702 - PRESTRESSED CONCRETE STRUCTURES

REGULATION: R 2013
YEAR/SEM: IV / VII

COURSE OUTCOMES

C402.1	To summarize the methods and advantages of prestressing.
C402.2	To analyse the concrete structure subjected to flexure and shear.
C402.3	To analyse the deflection of a prestressed members by considering anchorage.
C402.4	To analyse the composite beams and continuous beams this is used in the construction of beams.
C402.5	To analyse and design the pipes poles and partial prestressed structures.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C402.1	3	3	3	3	3	2	-	-	-	-	-	3	3	3
C402.2	3	3	3	3	3	2	-	-	-	-	-	3	3	3
C402.3	3	3	3	3	3	2	-	-	-	-	-	3	3	3
C402..4	3	3	3	3	3	2	-	-	-	-	-	3	3	3
C402.5	3	3	3	3	3	2	-	-	-	-	-	3	3	3
C402	**3**	**3**	**3**	**3**	**3**	**2**	**-**	**-**	**-**	**-**	**-**	**3**	**3**	**3**

Course Code &Name: CE6703 WATER RESOURCES AND IRRIGATION ENGINEERING

REGULATION: R 2013
YEAR/SEM: IV / VII

COURSE OUTCOMES

C403.1	To impart the knowledge on the available water resources in TamilNadu and their storage structures.
C403.2	To plan the optimal use of both surface and ground water by considering the water policies.
C403.3	To summarize crop seasons and its water requirement.
C403.4	To outline about canal irrigation system.
C403.5	To understand the merits and demerits for different types irrigation methods

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C403.1	2	2	-	-	2	2	2	-	-	-	-	2	3	2
C403.2	2	2	-	-	2	2	2	-	-	-	-	2	3	2
C403.3	2	2	-	-	2	2	2	-	-	-	-	2	3	2
C403.4	2	2	-	-	2	2	2	-	-	-	-	2	3	2
C403.5	2	2	-	-	2	2	2	-	-	-	-	2	3	2
C403	**2**	**2**	**-**	**-**	**2**	**2**	**2**	**-**	**-**	**-**	**-**	**2**	**3**	**2**

Course Code &Name: CE 6704 ESTIMATION AND QUANTITY SURVEYING
REGULATION: R 2013
YEAR/SEM: IV / VII

COURSE OUTCOMES

C404.1	To estimate the various quantities for buildings.
C404.2	To estimate the quantity and rates for various water supply works and roads.
C404.3	To summarize about the tenders and contracts.
C404.4	To summarize the valuation process of the structure
C404.5	To recall the complete report preparation of estimation of the structure.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C404.1	3	3	3	2	3	-	-	-	-	-	-	3	3	2
C404.2	3	3	3	2	3	-	-	-	-	-	-	3	3	2
C404.3	3	3	3	2	3	-	-	-	-	-	-	3	3	2
C404.4	3	3	3	2	3	-	-	-	-	-	-	3	3	2
C404.5	2	3	3	2	3	-	-	-	-	-	-	3	3	2
C404	**2.8**	**3**	**3**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**3**	**2**

Course Code &Name: CE6006 TRAFFIC ENGINEERING MANAGEMENT

REGULATION: R 2013
YEAR/SEM: IV / VII

COURSE OUTCOMES

C405.1	To summarize the planning and characteristics traffic problems.
C405.2	To carry out the survey on traffic levels.
C405.3	To analyse and design the traffic signals and visual aids.
C405.4	To summarize the traffic safety and promotion of public transport and non-motorized transport.
C405.5	To summarize the various traffic management system with various code provisions.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C405.1	2	3	3	3	2	2	2	2	-	-	-	2	2	2
C405.2	2	3	3	3	2	3	2	2	-	-	-	2	2	2
C405.3	2	3	3	3	2	3	3	2	-	-	-	2	2	2
C405.4	2	3	3	3	2	3	3	2	-	-	2	2	2	2
C405.5	2	3	3	3	2	3	2	2	-	-	2	2	2	2
C405	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**-**	**-**	**-**	**2**	**2**	**2**

Course Code &Name: EN6501 MUNICIPAL SOLID WASTE MANAGEMENT

REGULATION: R2013
YEAR/SEM: IV / VII

COURSE OUTCOMES

C406.1	To summarize the sources and characteristics of municipal solid waste.
C406.2	To illustrate the onsite storage process of solid waste and understand 3R concept.
C406.3	To identify the optimized route for solid waste collection and transfer it to the disposal site.
C406.4	To recall the onsite processing and understand the composting and biomenthantion process of solid waste disposal
C406.5	To plan the site selection for the sanitary landfill and leachate managing techniques.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C406.1	2	2	2	2	2	2	2	-	-	-	-	2	2	2
C406.2	2	2	2	2	2	2	2	-	-	-	-	2	2	2
C406.3	2	2	2	2	2	2	2	-	-	-	-	2	2	2
C406.4	2	2	2	2	3	2	2	-	-	-	-	3	2	2
C406.5	2	2	2	2	3	2	2	-	-	-	-	3	2	2
C406	**2**	**2**	**2**	**2**	**2.4**	**2**	**2**	**-**	**-**	**-**	**-**	**2.4**	**22**	**2**

Course Code &Name: CE 6711 COMPUTER AIDED DESIGN AND DRAFTING LABORATORY

REGULATION: R 2013
YEAR/SEM: IV / VII

COURSE OUTCOMES

C407.1	To Design and drawing of RCC cantilever and counter fort type retaining walls with reinforcement details using auto CADD.
C407.2	To analyse solid slab and RCC Tee beam bridges for IRC loading and reinforcement details
C407.3	To produce structural drawing of circular and rectangular RCC water tanks
C407.4	To design and draft plate Girder Bridge - Truss Girder bridges – Detailed Drawings including connections
C407.5	To design of hemispherical bottomed steel tank

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
C407.1	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C407.2	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C407.3	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C407.4	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C407.5	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C407	**3**	**3**	**2**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**3**	**2**

Course Code &Name: CE6712 DESIGN PROJECT

REGULATION: R 2013
YEAR/SEM: IV / VII

COURSE OUTCOMES

C408.1	To plan and draft the proposed drawing using the modern tool,
C408.2	To design the various parts of the structural elements
C408.3	To analyse the building loads using the modern tools.
C408.4	To estimate the rate and quantity of the proposed structure.
C408.5	To sketch the plan for approval drawings.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C408.1	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C408.2	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C408.3	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C408.4	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C408.5	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C408	**3**	**3**	**2**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**3**	**2**

Course Code &Name: MG6851 PRINCIPLES OF MANAGEMENT

REGULATION: R 2013
YEAR/SEM: IV / VIII

COURSE OUTCOMES

C409.1	To summarize the types of managers, businesses, and organization.
C409.2	To summarize the planning process, tools, techniques, decision making steps.
C409.3	To explain the purpose of organization chart and its types.
C409.4	To summarize the motivation theories techniques and communication
C409.5	To impart knowledge on budgetary and non – budgetary control of projects.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C409.1	-	-	-	-	-	-	-	2	-	3	2	2	-	-
C409.2	-	-	-	-	-	-	-	2	-	3	2	2	-	-
C409.3	-	-	-	-	-	-	-	2	-	3	2	2	-	-
C409.4	-	-	-	-	-	-	-	2	-	3	2	2	-	-
C409.5	-	-	-	-	-	-	-	2	3	3	2	2	-	-
C409	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**3**	**3**	**2**	**2**	**-**	**-**

Course Code &Name: CE6016 PREFABRICATED STRUCTURES

REGULATION: R 2013
YEAR/SEM: IV / VIII

COURSE OUTCOMES

C410.1	To outline the principles and requirements for pre-stressed concrete design and codes of practice.
C410.2	Apply an appropriate system to pre-stressed for a particular structure
C410.3	Estimate the internal forces due to the pre-stressing in a prestressed concrete structure
C410.4	Design special pre-stressing elements
C410.5	Design the pre-stressing layout & the pre-stressing force that fulfils the relevant limit states

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C410.1	3	3	2	3	2	2	-	-	-	-	-	3	3	3
C410.2	3	3	2	3	2	2	-	-	-	-	-	3	3	3
C410.3	3	3	2	3	2	2	-	-	-	-	-	3	3	3
C410.4	3	3	2	3	2	2	-	-	-	-	-	3	3	3
C410.5	3	3	2	3	2	2	-	-	-	-	-	3	3	3
C410	**3**	**3**	**2**	**3**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**3**	**3**	**3**

Course Code &Name: CE 6021 REPAIR AND REHABILITAION OF THE STRUCTURES

REGULATION: R 2013
YEAR/SEM: IV / VIII

COURSE OUTCOMES

C411.1	To study about the maintenance and repair strategies of the structures.
C411.2	To cram the durability of concrete structures.
C411.3	To impart the knowledge on special concretes.
C411.4	To study the techniques for repair of the structures.
C411.5	To outline the Retrofitting techniques of the buildings.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C411.1	2	2	3	3	3	3	2	2	3	2	2	2	3	2
C411.2	-	-	3	-	2	2	3	-	-	-	2	-	3	2
C411.3	-	-	2	3	3	3	3	-	3	2	2	3	3	2
C411.4	3	3	3	2	2	2	2	-	2	3	2	3	3	2
C411.5	3	3	2	-	2	3	3	-	2	2	2	3	3	2
C411	**2.6**	**2.6**	**2.6**	**2.6**	**2.4**	**2.6**	**2.6**	**1**	**2.5**	**1.8**	**2**	**2.7**	**3**	**2**

Course Code &Name: CE 6811 PROJECT WORK

REGULATION: R 2013
YEAR/SEM: IV / VIII

COURSE OUTCOMES

C412.1	To understand professional and ethical responsibilities.
C412.2	An ability to use of various techniques, engineering knowledge and skill, and modern engineering tools necessary for planning, analysis and designing of engineering projects like building, roads, geotechnical works/problems
C412.3	Recognition of the need for new raw materials and ability to use them in the construction materials.
C412.4	Knowledge of contemporary issues in the environment.
C412.5	Ability to handle the challenging issues and formulate the solutions for it.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C412.1	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C412.2	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C412.3	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C412.4	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C412.5	3	3	2	2	3	-	-	-	-	-	-	3	3	2
C412	**3**	**3**	**2**	**2**	**3**	-	-	-	-	-	-	**3**	**3**	**2**

PRINCIPAL
GNANAMANI COLLEGE OF TECHNOLOGY,
NH-7, A.K. Samuthiram,
Pachal (Po), Namakkal-637 018