DEPARTMENT OF CIVIL ENGINEERING
REGULATION 2017

HS8151 COMMUNICATIVE ENGLISH

C101.1 Read articles of a general kind in magazines and newspapers.
C101.2 Participate effectively in informal conversations
C101.3 introduce themselves and their friends and express opinions in English.
C101.4 Comprehend conversations and short talks delivered in English
C101.5 Write short essays of a general kind and personal letters and emails in English.

MA8151 ENGINEERING MATHEMATICS – I

C102.1 Use both the limit definition and rules of differentiation to differentiate functions.
C102.2 Apply differentiation to solve maxima and minima problems and evaluate integrals both by using Riemann sums and by using the Fundamental Theorem of Calculus.
C102.3 Apply integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables.
C102.4 Evaluate integrals using techniques of integration, such as substitution, partial fractions and integration by parts.
C102.5 Determine convergence/divergence of improper integrals and evaluate convergent improper integrals.

PH8151 ENGINEERING PHYSICS

C103.1 Gain knowledge on the basics of properties of matter and its applications
C103.2 Acquire knowledge on the concepts of waves and optical devices Tand their applications in fibre optics
C103.3 Gain adequate knowledge on the concepts of thermal properties of materials and their applications in expansion joints and heat exchangers
C103.4 Gain knowledge on advanced physics concepts of quantum theory and its applications in tunneling microscopes
C103.5 Understand the basics of crystals, their structures and different crystal growth techniques.

CY8151 ENGINEERING CHEMISTRY

C104.1 Gain knowledge on water parameters
C104.2 Gain knowledge on water treatment techniques
C104.3 Gain knowledge on engineering materials
C104.4 Gain knowledge on fuels, energy sources
C104.5 Understanding of engineering processes and applications for further learning

GE8151 PROBLEM SOLVING AND PYTHON PROGRAMMING

C105.1 Develop algorithmic solutions to simple computational problems
C105.2 Read, write, execute by hand simple Python programs.
C105.3 Structure simple Python programs for solving problems.
C105.4 Decompose a Python program into functions.
C105.5 Represent compound data using Python lists, tuples, dictionaries. Read and write data from/to files in Python Programs

GE8152 ENGINEERING GRAPHICS

C106.1 familiarize with the fundamentals and standards of Engineering graphics
C106.2 perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.3 project orthographic projections of lines and plane surfaces.
C106.4 draw projections and solids and development of surfaces.
C106.5 visualize and to project isometric and perspective sections of simple solids

GE8161 PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY

C107.1 Write, test, and debug simple Python programs.
C107.2 Implement Python programs with conditionals and loops.
C107.3 Develop Python programs step-wise by defining functions and calling them.
C107.4 Use Python lists, tuples, dictionaries for representing compound data.

C107.5 Read and write data from/to files in Python

BS8161 PHYSICS AND CHEMISTRY LABORATORY

C108.1 Able to understand the working principle of laser components and working of different laser system.Able to understand the phenomenon of light, applications of fibre optics. Able to understand the amount of dissolved oxygen present in the water.

C108.2 Able to understand the principle of sound, velocity of ultrasonic waves in various liquids. Able to understand the concept about the amount of chloride present in the given sample of water

C108.3 Able to understand the concept of optics like reflection, refraction, diffraction by using spectrometer grating. Able to understand the concept about the measure the conductance of strong acid and strong base by using conductivity meter.

C108.4 Able to understand the thermal properties of solids, specific heat and some models for specific heat calculation. Able to understand the concept of determining the conductance of mixture of acids by using conductivity meter.

C108.5 Able to understand the concept about the basic properties of matter like stress, strain and types of modulii Able to understand the thin film interference and diffraction types. Able to understand the concept of determining the pH value by using pH meter

HS8251 TECHNICAL ENGLISH

C109.1 Read technical texts and write area- specific texts effortlessly.

C109.2 Listen and comprehend lectures and talks in their area of specialisation successfully.

C109.3 Speak appropriately and effectively in varied formal and informal contexts.

C109.4 Write reports and winning job applications

C109.5 Able to talk in their area of specialisation successfully

MA8251 ENGINEERING MATHEMATICS – II

C110.1 Eigenvalues and eigenvectors, diagonalization of a matrix, Symmetric matrices, Positive definite matrices and similar matrices.

C110.2 Gradient, divergence and curl of a vector point function and related identities.

C110.3 Evaluation of line, surface and volume integrals using Gauss, Stokes and Green's theorems and their verification.

C110.4 Analytic functions, conformal mapping and complex integration.

C110.5 Laplace transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients.

PH8201 PHYSICS FOR CIVIL ENGINEERING

C111.1 Gain knowledge on the thermal performance of buildings,

C111.2 Gain knowledge on the acoustic properties of buildings,

C111.3 Gain knowledge on various lighting designs for buildings,

C111.4 Gain knowledge on the properties and performance of engineering materials

C111.5 Gain understand the hazards of buildings

BE8251 BASIC ELECTRICAL AND ELECTRONICS ENGINEERING

C112.1 To learn basic theorems used in Electrical circuits and the different components and function of electrical machines

C112.2 Ability to identify the electrical components and explain the characteristics of electrical machines.

C112.3 Ability to identify electronics components and understand the characteristics

C112.4 To learn fundamentals of semiconductor and applications

C112.5 To learn principles of digital electronics

GE8291 ENVIRONMENTAL SCIENCE AND ENGINEERING

C113.1 Environmental Pollution or problems cannot be solved by mere laws.

C113.2 Public participation is an important aspect which serves the environmental Protection. One will obtain knowledge on the following after completing the course.

C113.3 Public awareness of environmental is at infant stage.

C113.4 Ignorance and incomplete knowledge has lead to misconceptions

C113.5 Development and improvement in std. of living has lead to serious environmental disasters

GE8292 ENGINEERING MECHANICS

C114.1 Able to illustrate the vectorial and scalar representation of forces and moments

C114.2 Able to analyse the rigid body in equilibrium
C114.3 Able to evaluate the properties of surfaces and solids
C114.4 Able to calculate dynamic forces exerted in rigid body
C114.5 Able to determine the friction and the effects by the laws of friction

GE8261 ENGINEERING PRACTICES LABORATORY

C115.1 Fabricate carpentry components and pipe connections including plumbing works. use welding equipments to join the structures.
C115.2 Carry out the basic machining operations
C115.3 Make the models using sheet metal works, Illustrate on centrifugal pump, Air conditioner, operations of smithy, foundary and fittings
C115.4 Carry out basic home electrical works and appliances and Measure the electrical quantities
C115.5 Elaborate on the components, gates, soldering practices.

CE8211 COMPUTER AIDED BUILDING DRAWING

C116.1 Develop drafting skills in drawing plan, section and elevation of residential buildings using AutoCAD software
C116.2 Develop drafting skills in drawing plan, section and elevation of public buildings using AutoCAD software
C116.3 Develop drafting skills in drawing section and elevation of Doors and windows using AutoCAD software
C116.4 Develop drafting skills in drawing plan, section and elevation of industrial buildings using AutoCAD software
C116.5 Develop Building Information Modeling

MA8353 TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS

C201.1 Understand how to solve the given standard partial differential equations.
C201.2 Solve differential equations using Fourier series analysis which plays a vital role in engineering applications.
C201.3 Appreciate the physical significance of Fourier series techniques in solving one and two dimensional heat flow problems and one dimensional wave equations.
C201.4 Understand the mathematical principles on transforms and partial differential equations would provide them the ability to formulate and solve some of the physical problems of engineering.
C201.5 Use the effective mathematical tools for the solutions of partial differential equations by using Z transform techniques for discrete time systems

CE8301 STRENGTH OF MATERIALS I

C202.1 To gain knowledge about the stress and strain due to various loads acting on the structural members and also the member deformation due to thermal stress
C202.2 To study the bending of beams for different type of loads and support conditions and also the shear force and bending moment diagram
C202.3 To gain knowledge about slope and deflection in the structural members using different methods
C202.4 To gain knowledge about the torsion of the circular and hollow shafts and Springs
C202.5 To Analyze the pin jointed plane and space trusses

CE8302 FLUID MECHANICS

C203.1 Get a basic knowledge of fluids in static, kinematic and dynamic equilibrium.
C203.2 Understand and solve the problems related to equation of motion.
C203.3 Gain knowledge about dimensional and model analysis
C203.4 Learn types of flow and losses of flow in pipes.
C203.5 Understand and solve the boundary layer problems

CE8351 SURVEYING

C204.1 The use of various surveying instruments and mapping
C204.2 Measuring Horizontal angle and vertical angle using different instruments
C204.3 Methods of Leveling and setting Levels with different instruments
C204.4 Concepts of astronomical surveying and methods to determine time, longitude, latitude and azimuth
C204.5 Concept and principle of modern surveying.

CE8391 CONSTRUCTION MATERIALS

C205.1 To gain knowledge on the properties and tests to be conducted for stones, brick and blocks
C205.2 To understand manufacturing methods and tests for lime, cement and aggregates
C205.3 To gain knowledge on the basic concepts on concrete, its manufacture, design mix and types
C205.4 To understand the use of timber, steel and other materials in the construction industry
C205.5 To introduce the knowledge of modern materials

CE8392 ENGINEERING GEOLOGY

C206.1 To acquire the knowledge of the topographical formation, interior earth, gradational activities and weathering and also the theory of plate tectonics which answers the reason for the occurrence of earthquake, landslides in an area
C206.2 To interpret minerals and assess its physical, chemical and mechanical properties
C206.3 To interpret rocks and assess its physical, mechanical and engineering properties
C206.4 To determine geological structures, its exploration and its relevance on civil projects
C206.5 To investigate the geological information for the construction of civil engineering projects

CE8311 CONSTRUCTION MATERIALS LABORATORY

C207.1 Conduct Quality Control tests on Fine Aggregates
C207.2 Conduct Quality Control tests on Coarse Aggregates
C207.3 Conduct Quality Control tests on fresh concrete
C207.4 Determine the strength properties of hardened concrete
C207.5 Perform Quality Control tests on Bricks, blocks and tiles

CE8361 SURVEYING LABORATORY

C208.1 Gain practical knowledge on handling basic survey instruments
C208.2 Gain practical knowledge on handling Theodolite, Tacheometry
C208.3 Gain practical knowledge on handling Total Station and GPS
C208.4 Gain adequate knowledge to carryout Triangulation and Astronomical surveying
C208.5 Gain adequate knowledge on general field marking for various engineering projects and Location of site

HS8381 INTERPERSONAL SKILLS/LISTENING AND SPEAKING

C209.1 Listen and respond appropriately.
C209.2 Participate in group discussions
C209.3 Make effective presentations
C209.4 Participate confidently and appropriately in conversations formally
C209.5 Participate confidently and appropriately in conversations informally

MA8491NUMERICAL METHODS

C210.1 Understand the basic concepts and techniques of solving algebraic and transcendental equations.
C210.2 Appreciate the numerical techniques of interpolation and error approximations in various intervals in real life situations.
C210.3 Apply the numerical techniques of differentiation and integration for engineering problems.
C210.4 Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.
C210.5 Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications

CE8401 CONSTRUCTION TECHNIQUES AND PRACTICES

C211.1 know the different construction techniques and structural systems
C211.2 Understand various techniques and practices on masonry construction, flooring, and roofing.
C211.3 Plan the requirements for substructure construction.
C211.4 Know the methods and techniques involved in the construction of various types of super structures
C211.5 Select, maintain and operate hand and power tools and equipment used in the building construction sites

CE8402 STRENGTH OF MATERIALS II

C212.1 To analyse beams, frames and trusses by strain energy method and principle of virtual work

C212.2 To analyse continuous beams using theorem of three moments and Analyse fixed and propped cantilever beam and draw shear force and bending moment diagrams

C212.3 To analyse columns using Euler's Theory, Rankine's theory and analyse stress distribution in thick compound cylinders.

C212.4 To compute principal stresses and strains & demonstrate the different theories of failure for brittle and ductile materials

C212.5 To apply the different methods of unsymmetrical bending analysis and demonstrate the significance and concept of Shear Centre.

CE8403 APPLIED HYDRAULIC ENGINEERING

C213.1 Apply their knowledge of fluid mechanics in addressing problems in open channels.

C213.2 Able to identify a effective section for flow in different cross sections.

C213.3 To solve problems in uniform, gradually and rapidly varied flows in steady state conditions.

C213.4 Understand the principles, working and application of turbines.

C213.5 Understand the principles, working and application of pumps

CE8404 CONCRETE TECHNOLOGY

C214.1 The various requirements of cement, aggregates and water for making concrete

C214.2 The effect of admixtures on properties of concrete

C214.3 The concept and procedure of mix design as per IS method

C214.4 The properties of concrete at fresh and hardened state

C214.5 The importance and application of special concretes

CE8491 SOIL MECHANICS

C215.1 To classify the soil based on index properties and evaluate soil compaction characteristics

C215.2 To gain knowledge about effective stress in soil, determine permeability and seepage analysis

C215.3 To calculate stress distribution in a soil medium due to load applied at the ground surface and to find the settlement and consolidation characteristics of the soil mass

C215.4 To assess the shear strength of various types of soil and pore pressure parameters

C215.5 To attain knowledge in slope failure mechanism and analyze the stability of slopes using different methods.

CE8481 STRENGTH OF MATERIALS LABORATORY

C216.1 Acquire required knowledge in the area of testing steel rod

C216.2 Acquire required knowledge in the area of testing wood

C216.3 Acquire required knowledge in the area of testing metal

C216.4 Acquire required knowledge in the area of testing components of structural elements

C216.5 Learn deflection and compression test

CE8461 HYDRAULIC ENGINEERING LABORATORY

C217.1 The students will be able to study the Characteristics of pumps

C217.2 The students will be able to study the Characteristics of turbine

C217.3 The students will be able to measure flow in pipes and determine frictional losses.

C217.4 The students will be able to develop characteristics of pumps and turbines

C217.5 The students will be able to verify the principles studied in theory by performing the experiments in lab.

HS8461 ADVANCED READING AND WRITING

C218.1 Ability to write different types of essays.

C218.2 Ability to write winning job applications.

C218.3 Ability to read and evaluate texts critically.

C218.4 Ability to display critical thinking in various professional contexts

CE 8501 DESIGN OF REINFORCED CEMENT CONCRETE ELEMENTS

C301.1 Understand the various design methodologies for the design of RC elements.

C301.2 Know the analysis and design of flanged beams by limit state method and sign of beams for shear, bond and torsion.

C301.3 Design the various types of slabs and staircase by limit state method.

C301.4 Design columns for axial, uniaxial and biaxial eccentric loadings.
C301.5 Design of footing by limit state method.

CE8502 STRUCTURAL ANALYSIS I

C302.1 Analyse continuous beams, pin-jointed indeterminate plane frames and rigid plane frames by strain energy method
C302.2 Analyse the continuous beams and rigid frames by slope defection method.
C302.3 Understand the concept of moment distribution and analysis of continuous beams and rigid frames with and without sway.
C302.4 Analyse the indeterminate pin jointed plane frames continuous beams and rigid frames using matrix flexibility method.
C302.5 Understand the concept of matrix stiffness method and analysis of continuous beams, pin jointed trusses and rigid plane frames.

EN8491 WATER SUPPLY ENGINEERING

C303.1 Create an insight into the structure of drinking water supply systems, including water transport, treatment and distribution
C303.2 Attain the knowledge in various unit operations and processes in water treatment
C303.3 To design the various functional units in water treatment
C303.4 To understand water quality criteria and standards, and their relation to public health
C303.5 To design and evaluate water supply project alternatives on basis of chosen criteria.

CE8591 FOUNDATION ENGINEERING

C304.1 To understand the site investigation, methods and sampling of soil
C304.2 To gain knowledge on bearing capacity of soil and testing methods in the laboratory
C304.3 To analyse and design different types of shallow footings
C304.4 To determine the load carrying capacity and settlement of pile foundation
C304.5 To determine the earth pressure on retaining walls and carryout the analysis for stability

GI8014 GEOGRAPHIC INFORMATION SYSTEM

C305.1 Have basic idea about the fundamentals of GIS.
C305.2 Understand the types of data models
C305.3 Get knowledge about data input and topology.
C305.4 Gain knowledge on data quality and standards.
C305.5 Understand data management functions and data output

C306 OPEN ELECTIVE UNKNOWN

CE8511 SOIL MECHANICS LABORATORY

C307.11 Classifying soil based on index properties of soils (coarse and fine).
C307.2 Classifying soil based on consistency limit of fine grained soils
C307.3 Interpreting the shear strength of all types of soils by conducting lab tests
C307.4 Interpreting the shear strength of all types of soils by conducting lab tests
C307.5 Understanding the engineering properties of soils by conducting field tests

EN8512 WATER AND WASTE WATER ANALYSIS LABORATORY

C308.1 Quantify the pollutant concentration in water and wastewater
C308.2 Suggest the type of treatment required and amount of dosage required for the treatment
C308.3 Examine the conditions for the growth of micro-organisms
C308.4 Suggest the type of treatment required to reduce e-coli in water
C308.5 Compare the analysis of treated water among different treatments

CE8513 SURVEY CAMP (2 weeks –During IV Semester)

C309.1 To use all surveying equipment, prepare LS &CS
C309.2 To prepare contour maps by triangulation method
C309.3 To prepare maps and grids by Trilateration method
C309.4 To prepare contour maps by Rectangulation method
C309.5 To carryout surveying works related to land and civil engineering projects

CE 8601 DESIGN OF STEEL STRUCTURES

C310.1 Understand the concepts of various design philosophies
C310.2 Design common bolted and welded connections for steel structures

C310.3 Design tension members and understand the effect of shear lag.
C310.4 Understand the design concept of axially loaded columns and column base connections.
C310.5 Understand specific problems related to the design of laterally restrained and unrestrained steel beams.

CE 8602 STRUCTURAL ANALYSIS II

C311.1 Draw influence lines for statically determinate structures and calculate critical stress resultants.
C311.2 Understand Muller Breslau principle and draw the influence lines for statically indeterminate beams
C311.3 Analyse of three hinged, two hinged and fixed arches.
C311.4 Analyse the suspension bridges with stiffening girders
C311.5 Understand the concept of Plastic analysis and the method of analyzing beams and rigid frames.

CE8603 IRRIGATION ENGINEERING

C312.1 Have knowledge and skills on crop water requirements.
C312.2 Understand the methods and management of irrigation.
C312.3 Gain knowledge on types of Impounding structures
C312.4 Understand methods of irrigation including canal irrigation.
C312.5 Get knowledge on water management on optimization of water use.

CE8604 HIGHWAY ENGINEERING

C313.1 Get knowledge on planning and aligning of highway.
C313.2 Geometric design of highways
C313.3 Design flexible and rigid pavements
C313.4 Gain knowledge on Highway construction materials, properties, testing methods
C313.5 Understand the concept of pavement management system, evaluation of distress and maintenance of pavements.

EN8592 WASTEWATER ENGINEERING

C314.1 To estimate sewage generation and design sewer system including sewage pumping stations
C314.2 To understand on the characteristics and composition of sewage, self-purification of streams
C314.3 To perform basic design of the unit operations and processes that are used in sewage treatment
C314.4 To understand the standard methods for disposal of sewage.
C314.5 To Gain knowledge on sludge treatment and disposal

C315 ELECTIVE UNKNOWN

CE8611 HIGHWAY ENGINEERING LABORATORY

C316.1 To conduct Quality Control tests on Aggregates
C316.2 To determine the strength properties of Aggregates
C316.3 To determine the strength properties of bitumen
C316.4 To perform Quality Control tests on bitumen
C316.5 To characterize the bituminous mixes

CE8612 IRRIGATION AND ENVIRONMENTAL ENGINEERING DRAWING

C317.1 Design and draw tank surplus weir and tank sluice with tower head, earth dam and its profile
C317.2 Design and draw -Aqueducts – Syphon aqueduct (Type III) – Canal drop (Notch Type)
C317.3 Design and draw - Direct Sluice - Canal regulator
C317.4 Design and draw flash mixer, flocculator, clarifier – Rapid sand filter – Service reservoirs – Pumping station – House service connection for water supply and drainage.
C317.5 Design and draw screen chamber - Grit channel - Primary clarifier - Activated sludge process – Aeration tank – Trickling filter – Sludge digester – Sludge drying beds – Septic tanks and disposal arrangements.

CE 8701 ESTIMATION COSTING AND VALUATION ENGINEERING

C401.1 Estimate the quantities for buildings
C401.2 Rate Analysis for all Building works, canals, and Roads and Cost Estimate.
C401.3 Understand types of specifications, principles for report preparation, tender notices types.
C401.4 Gain knowledge on types of contracts.

C401.5 Evaluate valuation for building and land.

CE8702 RAILWAYS, AIRPORT AND HARBOUR ENGINEERING

C402.1 Understand the methods of route alignment and design elements in Railway Planning and Constructions.

C402.2 Understand the Construction techniques and Maintenance of Track laying and Railway stations.

C402.3 Gain an insight on the planning and site selection of Airport Planning and design.

C402.4 Analyze and design the elements for orientation of runways and passenger facility systems.

C402.55 Understand the various feature in Harbours and Ports, their construction, coastal protection works and coastal Regulations to be adopted.

CE 8703 STRUCTURAL DESIGN AND DRAWING COURSE OUTCOMES

C403.1 Design and draw reinforced concrete Cantilever and Counterfort Retaining Walls

C403.2 Design and draw flat slab as per code provisions

C403.3 Design and draw reinforced concrete and steel bridges

C403.4 Design and draw reinforced concrete and steel water tanks

C403.5 Design and detail the various steel trusses and gantry girders

CE8007– TRAFFIC ENGINEERING AND MANAGEMENT

C404.1 Explain the basic properties of traffic and their application in real world problems.

C404.2 Determine the variation of traffic volume and calculate the traffic density and the Statistical applications in traffic studies and traffic forecasting

C404.3 Explain the Significant roles of traffic control personnel

C404.4 Determine the Traffic and environment hazards

C404.5 Describe the Intelligent Transport System for traffic management, enforcement and education.

C405 OPEN ELECTIVE II* UNKNOWN

CE8711 CREATIVE AND INNOVATIVE PROJECT (ACTIVITY BASED - SUBJECT RELATED)

C406.1 Able to design any of the Civil Engineering structure

C406.2 Able to interpret data, and synthesis the information to provide valid conclusions

C406.3 Apply appropriate techniques, modern Engineering tools to engineering activities

C406.4 Able to communicate effectively, manage the team or partner

C406.5 Apply ethical principles and commit to professional ethics and responsibilities

CE8712 INDUSTRIAL TRAINING(4 Weeks During VI Semester – Summer)

C407.1 To intricacies of implementation textbook knowledge into practice in the chosen fields of engineering.

C407.2 To understand the concepts of developments and implementation of new techniques by conducting research.

C407.3 To understand the importance of sustainability and cost-effectiveness in design and developments of engineering solution.

C407.4 To be a multi-skilled engineer with good technical knowledge, management, leadership and entrepreneurship skills through continuous professional development and life-long learning.

C407.5 To create an awareness of the social, cultural, global and environmental responsibility as an engineer.

C408 PROFESSIONAL ELECTIVE IV UNKNOWN

CE8020 MAINTENANCE, REPAIR AND REHABILITATION OF STRUCTURES

C409.1 To understand the importance of maintenance and assessment method of distressed structures.

C409.2 To gain knowledge on the strength and durability properties, their effects due to climate and temperature.

C409.3 To get exposures on recent development in concrete and special concrete properties and its application.

C409.4 To understand the different techniques available for repair and protection methods

C409.5 To acquire information on repair, rehabilitation, retrofitting of structures and different demolition methods.

CE8811 PROJECT WORK

CO410.1 Able to take up any challenging practical problems in Civil Engineering
CO410.2 Able to solve the problem from its identification and through literature reviews
CO410.3 Apply appropriate techniques, modern Engineering tools to solve the problems
CO410.4 Able to solve the problem in context with societal and environmental need
CO410.5 Able to prepare project reports, presentations and to face interviews

CIVIL ENGINEERING
2017 REGULATION PO CO MAPPING

HS8151 Communicative English

HS8151	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101.1	0	0	0	0	0	0	0	0	2	3	0	0	0	0	3
C101.2	0	1	0	2	0	0	0	0	0	3	0	0	0	0	0
C101.3	0	2	0	3	0	0	0	0	0	2	0	0	3	0	1
C101.4	0	0	0	0	0	0	0	0	2	2	0	0	1	0	2
C101.5	0	2	1	1	2	0	2	0	0	3	0	0	1	0	1
Avg	0	1	0.2	1.2	0.4	0	0.4	0	0.8	2.6	0	0	1	0	1.4

MA8151 Engineering Mathematics – I

MA8151	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C102.1	3	3	3	2	2	1	0	0	0	0	1	2	1	2	2
C102.2	3	3	3	2	2	1	0	0	0	0	1	2	1	2	2
C102.3	3	3	3	2	2	1	0	0	0	0	1	2	2	2	1
C102.4	3	3	3	2	1	1	0	0	0	0	1	2	2	2	2
C102.5	3	3	3	3	2	1	0	0	0	0	1	2	1	1	2
Avg	3	3	3	2.2	1.8	1	0	0	0	0	1	2	1.4	1.8	1.8

PH8151 Engineering Physics

PH8151	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C103.1	3	3	3	3	3	2	2	0	3	2	1	2	1	2	2
C103.2	3	3	3	2	3	2	2	0	2	2	2	1	2	3	2
C103.3	3	3	2	2	2	1	2	0	2	1	1	2	2	1	2
C103.4	3	3	2	2	2	1	1	0	0	1	1	3	2	2	1
C103.5	3	3	3	3	2	1	2	0	3	1	1	3	3	2	2
Avg	3	3	2.6	2.4	2.4	1.4	1.8	0	2	1.4	1.2	2.2	2	2	1.8

CY8151 Engineering Chemistry

CY8151	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C104.1	3	2	3	3	3	3	3	0	2	3	2	3	2	1	2
C104.2	3	3	3	2	3	2	2	0	2	2	3	3	2	1	1
C104.3	2	3	2	2	3	2	2	0	2	2	3	3	2	1	2
C104.4	2	3	2	1	2	2	3	0	2	2	2	3	3	1	2
C104.5	3	3	3	2	3	3	3	0	3	3	3	3	3	2	3
Avg	2.6	2.8	2.6	2	2.8	2.4	2.6	0	2.2	2.4	2.6	3	2.4	1.2	2

GE8151 Problem Solving and Python Programming

GE8151	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C105.1	3	3	3	0	0	0	0	0	0	0	0	0	3	2	3
C105.2	3	3	3	0	0	0	0	0	0	0	0	0	3	2	3
C105.3	3	3	3	0	0	0	0	0	0	0	0	0	3	2	3
C105.4	3	3	3	0	0	0	0	0	0	0	0	0	3	2	3
C105.5	3	3	3	0	0	0	0	0	0	0	0	0	3	2	3
Avg	3	3	3	0	0	0	0	0	0	0	0	0	3	2	3

GE8152 Engineering Graphics

GE8152	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C106.1	2	1	2	1	2	0	0	0	0	2	0	2	2	2	0
C106.2	2	1	2	1	2	0	0	0	0	2	0	2	2	2	0
C106.3	2	1	2	1	2	0	0	0	0	2	0	2	2	2	0
C106.4	2	1	2	1	2	0	0	0	0	2	0	2	2	2	0
C106.5	2	1	2	1	2	0	0	0	0	2	0	2	2	2	0
Avg	2	1	2	1	2	0	0	0	0	2	0	2	2	2	0

GE8161 Problem Solving and Python Programming Laboratory

GE8161	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C107.1	3	3	3	0	3	0	0	3	3	3	2	2	3	2	3
C107.2	3	3	3	0	3	0	0	3	3	3	2	2	3	2	3
C107.3	3	3	3	0	3	0	0	3	3	3	2	2	3	2	3
C107.4	3	3	3	0	3	0	0	3	3	3	2	2	3	2	3
C107.5	3	3	3	0	3	0	0	3	3	3	2	2	3	2	3
Avg	3	3	3	0	3	0	0	3	3	3	2	2	3	2	3

BS8161 Physics and Chemistry Laboratory

BS8161	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C108.1	2	1	2	2	2	1	1	0	2	2	2	2	2	1	2
C108.2	2	1	2	1	1	1	1	0	2	1	1	1	2	2	2
C108.3	2	1	2	1	2	2	2	0	1	1	1	1	2	1	1
C108.4	2	2	1	1	2	1	1	0	2	1	1	2	2	1	1
C108.5	2	2	1	1	1	2	2	0	1	1	2	1	2	2	2
Avg	2	1.4	1.6	1.2	1.6	1.4	1.4	0	1.6	1.2	1.4	1.4	2	1.4	1.6

HS8251 Technical English

HS8251	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C109.1	0	0	0	0	0	0	0	1	2	3	0	0	0	0	3
C109.2	0	1	0	2	0	0	0	0	0	3	0	0	0	0	0
C109.3	0	2	0	3	0	0	0	0	1	2	0	0	3	0	1
C109.4	0	0	0	0	1	0	0	0	2	2	0	0	1	0	2
C109.5	0	2	1	1	2	0	2	0	0	3	0	0	1	0	1
Avg	0	1	0.2	1.2	0.6	0	0.4	0.2	1	2.6	0	0	1	0	1.4

MA8251 Engineering Mathematics – II

MA8251	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C110.1	3	3	3	1	2	3	0	0	3	2	3	3	1	2	1
C110.2	3	3	3	1	1	1	0	0	0	0	2	1	2	1	1
C110.3	3	3	3	2	1	1	0	1	0	0	1	1	2	1	2
C110.4	3	3	3	1	0	0	0	0	0	0	1	0	1	1	1
C110.5	3	3	3	1	0	0	0	0	0	0	1	0	2	1	1
Avg	3	3	3	1.2	0.8	1	0	0.2	0.6	0.4	1.6	1	1.6	1.2	1.2

PH8201 Physics For Civil Engineering

PH8201	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C111.1	3	3	0	0	2	0	0	0	0	0	0	0	1	0	2
C111.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
C111.3	0	0	0	1	0	0	3	0	0	0	0	0	1	0	2
C111.4	3	0	0	0	2	2	0	0	0	0	0	0	1	0	2
C111.5	0	0	0	0	0	3	0	0	3	1	0	0	1	0	2
Avg	1.2	0.6	0	0.2	0.8	1	0.6	0	0.6	0.2	0	0	1	0	2

BE8251 Basic Electrical and Electronics Engineering

BE8251	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C112.1	3	3	3	2	2	1	1	1	0	1	1	1	3	2	2
C112.2	3	3	3	2	2	3	1	1	0	1	1	1	3	2	2
C112.3	3	3	2	2	2	1	1	1	0	1	1	1	3	2	2
C112.4	3	3	2	2	2	1	1	1	0	1	1	1	3	2	2
C112.5	3	3	2	1	1	2	1	1	0	0	0	1	3	2	2
Avg	3	3	2.4	1.8	1.8	1.6	1	1	0	0.8	0.8	1	3	2	2

GE8291 Environmental Science and Engineering

GE8291	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C113.1	0	0	0	1	0	1	0	0	1	0	0	1	3	1	1
C113.2	0	0	0	3	0	2	1	1	2	1	0	2	2	1	3
C113.3	0	0	0	1	0	1	0	3	1	0	0	1	1	2	1
C113.4	0	0	0	2	0	2	0	2	2	0	0	2	2	3	3
C113.5	0	0	0	1	0	1	0	0	1	0	0	3	1	2	1
Avg	0	0	0	1.6	0	1.4	0.2	1.2	1.4	0.2	0	1.8	1.8	1.8	1.8

GE8292 Engineering Mechanics

GE8292	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C114.1	3	3	3	3	2	2	2	1	1	1	2	2	2	2	2
C114.2	3	3	3	2	2	2	2	1	1	1	2	2	2	2	2
C114.3	3	3	3	3	2	2	2	1	1	1	2	2	2	2	2
C114.4	3	3	3	3	2	2	2	1	1	1	2	2	2	2	2
C114.5	3	3	3	2	2	2	2	1	1	1	2	2	2	2	2
Avg	3	3	3	2.6	2	2	2	1	1	1	2	2	2	2	2

GE8261 Engineering Practices Laboratory

GE8261	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C115.1	1	1	2	1	0	0	0	0	0	2	0	2	1	0	0
C115.2	1	1	2	1	0	0	0	0	0	2	0	2	1	0	0
C115.3	1	1	2	1	0	0	0	0	0	2	0	2	1	0	0
C115.4	1	1	2	1	0	0	0	0	0	2	0	2	1	0	0
C115.5	1	1	2	1	0	0	0	0	0	2	0	2	1	0	0
Avg	1	1	2	1	0	0	0	0	0	2	0	2	1	0	0

CE8211 Computer Aided Building Drawing

CE8211	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C116.1	2	1	0	0	2	2	0	0	0	0	1	2	2	3	0
C116.2	2	1	0	0	2	2	0	0	0	0	1	2	2	3	0
C116.3	2	1	0	0	2	2	0	0	0	0	1	2	2	3	0
C116.4	2	1	0	0	2	2	0	0	0	0	1	2	2	3	0
C116.5	1	0	0	0	1	0	0	0	0	0	1	2	2	3	0
Avg	1.8	0.8	0	0	1.8	1.6	0	0	0	0	1	2	2	3	0

MA8353 Transforms and Partial Differential Equations

MA8353	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C201.1	0	1	0	0	0	0	0	0	0	0	1	0	3	0	0
C201.2	0	1	0	0	0	0	0	0	0	0	1	0	3	0	0
C201.3	0	1	0	0	0	0	0	0	0	0	1	0	3	0	0
C201.4	0	1	0	0	0	0	0	0	0	0	1	0	3	0	0

C201.5	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0
Avg	0	0.8	0	0	0	0	0	0	0	0	1	0	3	0	0

CE8301 Strength of Materials I

CE8301	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C202.1	3	3	2	2	3	3	2	1	0	0	0	2	1	1	1
C202.2	2	3	3	2	2	3	2	0	0	0	0	3	1	1	1
C202.3	3	3	3	2	2	2	2	0	0	0	0	2	1	1	1
C202.4	3	3	2	2	1	3	3	0	0	0	0	3	1	1	0
C202.5	3	3	2	2	2	3	3	0	0	0	0	3	1	1	0
Avg	2.8	3	2.4	2	2	2.8	2.4	0.2	0	0	0	2.6	1	1	0.6

CE8302 Fluid Mechanics

CE8302	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C203.1	3	2	0	0	3	0	0	0	0	0	0	3	3	0	2
C203.2	3	3	3	0	0	0	0	0	0	0	0	0	3	2	0
C203.3	2	0	3	2	0	1	0	0	0	0	0	0	2	2	0
C203.4	3	3	1	0	0	0	0	1	0	0	0	0	3	0	0
C203.5	3	2	2	1	0	0	0	0	0	0	0	0	3	0	0
Avg	2.8	2	1.8	0.6	0.6	0.2	0	0.2	0	0	0	0.6	2.8	0.8	0.4

CE8351 Surveying

CE8351	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C204.1	3	0	0	2	2	0	0	0	3	0	0	0	0	0	3
C204.2	3	0	0	2	1	0	0	0	3	0	0	0	0	0	3
C204.3	2	0	0	2	3	0	0	0	3	0	0	0	0	0	2
C204.4	2	0	0	2	3	0	0	0	2	0	0	0	0	0	2
C204.5	2	0	0	2	3	0	0	0	3	0	0	0	0	0	3
Avg	2.4	0	0	2	2.2	0	0	0	2.8	0	0	0	0	0	2.6

CE8391 Construction Materials

CE8391	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C205.1	0	2	3	1	3	0	2	0	0	2	0	0	2	0	2
C205.2	0	2	3	1	3	0	2	0	0	2	0	0	2	0	2
C205.3	0	3	3	3	2	0	2	0	0	2	0	0	2	0	3
C205.4	0	2	2	0	3	0	2	0	0	2	0	0	2	0	2
C205.5	0	2	2	0	3	1	2	0	0	2	0	0	2	0	2
Avg	0	2.2	2.6	1	2.8	0.2	2	0	0	2	0	0	2	0	2.2

CE8392 Engineering Geology

CE8392	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C206.1	2	0	0	2	0	3	0	0	0	0	0	3	3	0	3
C206.2	2	0	0	2	0	2	0	0	0	0	0	2	3	0	3
C206.3	3	0	0	2	0	3	0	0	0	0	0	2	3	0	3
C206.4	2	0	0	2	0	2	0	0	0	0	0	3	3	0	3
C206.5	3	0	0	2	0	3	0	0	0	0	0	3	3	0	3

Avg	**2.4**	**0**	**0**	**2**	**0**	**2.6**	**0**	**0**	**0**	**0**	**0**	**2.6**	**3**	**0**	**3**

CE8311 Construction Materials Laboratory

CE8311	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C207.1	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
C207.2	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
C207.3	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
C207.4	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
C207.5	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
Avg	**3**	**1**	**0**	**2**	**0**	**1**	**0**	**2**	**1**	**0**	**0**	**3**	**3**	**0**	**0**

CE8361 Surveying Laboratory

CE8361	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C208.1	3	0	0	2	2	0	0	0	3	0	0	0	0	0	3
C208.2	3	0	0	2	1	0	0	0	3	0	0	0	0	0	3
C208.3	2	0	0	2	3	0	0	0	3	0	0	0	0	0	2
C208.4	2	0	0	2	3	0	0	0	2	0	0	0	0	0	2
C208.5	2	0	0	2	3	0	0	0	3	0	0	0	0	0	3
Avg	2.4	0	0	2	2.2	0	0	0	2.8	0	0	0	0	0	2.6

HS8381 Interpersonal Skills / Listening and Speaking

HS8361	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C209.1	0	3	0	1	0	3	1	3	3	3	3	3	1	1	3
C209.2	1	0	1	1	2	0	0	3	3	3	3	0	1	1	3
C209.3	1	3	2	0	3	3	1	3	3	3	3	3	1	1	3
C209.4	0	1	1	1	2	0	1	3	3	3	3	0	1	1	3
C209.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg	0.4	1.4	0.8	0.6	1.4	1.2	0.6	2.4	2.4	2.4	2.4	1.2	0.8	0.8	2.4

MA8491 Numerical Methods

MA8491	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C210.1	0	1	0	0	1	0	0	1	0	0	1	0	3	0	0
C210.2	0	1	0	0	1	0	0	1	0	0	1	0	3	0	0
C210.3	0	1	0	0	1	0	0	1	0	0	1	0	3	0	0
C210.4	0	1	0	0	1	0	0	1	0	0	1	0	3	0	0
C210.5	0	0	0	0	1	0	0	1	0	0	1	0	3	0	0
Avg	0	0.8	0	0	1	0	0	1	0	0	1	0	3	0	0

CE8401 Construction Techniques and Practices

CE8401	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C211.1	0	2	3	1	3	0	2	0	0	2	0	0	2	0	2
C211.2	0	2	3	1	3	0	2	0	0	2	0	0	2	0	2
C211.3	0	3	3	3	2	0	2	0	0	2	0	0	2	0	3
C211.4	0	2	2	0	3	0	2	0	0	2	0	0	2	0	2
C211.5	0	2	2	0	3	1	2	0	0	2	0	0	2	0	2
Avg	0	2.2	2.6	1	2.8	0.2	2	0	0	2	0	0	2	0	2.2

CE8402 Strength of Materials II

CE8402	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C212.1	3	3	2	2	0	0	0	0	0	0	1	2	2	1	0
C212.2	3	3	3	3	0	2	0	2	0	0	1	2	2	1	0
C212.3	3	3	3	2	0	1	0	0	0	0	1	2	2	1	0
C212.4	3	3	3	2	0	0	0	0	0	0	1	2	2	1	0
C212.5	3	3	2	2	0	0	0	0	0	0	1	2	2	1	0
Avg	**3**	**3**	**2**	**2.2**	**0**	**0.6**	**0**	**0.4**	**0**	**0**	**1**	**2**	**2**	**1**	**0**

CE8403 Applied Hydraulic Engineering

CE8403	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C213.1	3	3	0	0	0	2	2	0	0	0	0	0	3	0	1
C213.2	0	3	0	0	2	0	0	0	0	0	0	0	1	0	0
C213.3	3	2	0	0	0	2	0	0	0	0	0	0	2	0	2
C213.4	2	0	2	3	0	0	0	1	0	0	0	0	0	2	0
C213.5	2	0	1	3	0	0	0	0	0	0	0	0	0	2	0
Avg	2	1.6	0.6	1.2	0.4	0.8	0.4	0.2	0	0	0	0	1.2	0.8	0.6

CE8404 Concrete Technology

CE8404	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C214.1	2	0	2	0	0	3	3	0	2	0	0	3	1	3	1
C214.2	2	0	3	1	0	3	0	3	1	0	1	3	3	3	3
C214.3	3	3	3	2	2	2	3	0	0	0	2	3	1	1	3
C214.4	2	0	0	2	1	2	3	0	0	0	1	3	1	3	1
C214.5	2	0	3	1	3	0	1	3	1	0	1	3	1	2	3
Avg	2.2	0.6	2.2	1.2	1.2	2	2	1.2	0.8	0	1	3	1.4	2.4	2.2

CE8491 Soil Mechanics

CE8491	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C215.1	3	2	2	0	0	0	3	3	3	0	0	3	3	0	2
C215.2	3	3	0	0	0	0	3	3	3	0	0	3	3	0	2
C215.3	3	3	0	0	0	0	3	3	3	0	0	3	3	0	2
C215.4	3	3	0	0	0	0	3	3	3	0	0	3	3	0	2
C215.5	3	2	0	0	0	0	2	3	2	0	0	2	3	0	2
Avg	3	2.6	0.4	0	0	0	2.8	3	2.8	0	0	2.8	3	0	2

CE8481 Strength of Materials Laboratory

CE8481	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C216.1	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
C216.2	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
C216.3	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
C216.4	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
C216.5	3	1	0	2	0	1	0	2	1	0	0	3	3	0	0
Avg	**3**	**1**	**0**	**2**	**0**	**1**	**0**	**2**	**1**	**0**	**0**	**3**	**3**	**0**	**0**

CE8461 Hydraulic Engineering Laboratory

CE8461	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C217.1	3	1	0	0	0	1	2	1	1	1	3	2	3	0	2
C217.2	3	2	2	2	0	0	3	1	1	1	2	2	3	0	2
C217.3	3	2	3	3	0	1	2	1	1	1	2	2	3	0	1
C217.4	3	2	3	2	0	2	2	1	1	1	1	1	3	0	2
C217.5	3	2	3	2	0	2	2	1	1	1	1	1	3	0	2
Avg	3	1.8	2.2	1.8	0	1.2	2.2	1	1	1	1.8	1.6	3	0	1.8

HS8461 Advanced Reading and Writing

HS8461	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C218.1	1	3	2	1	0	1	3	0	2	0	0	2	2	0	1
C218.2	1	3	0	3	0	0	2	0	2	0	0	2	2	0	1
C218.3	1	3	0	3	0	0	2	0	2	0	0	2	2	0	1
C218.4	1	3	0	3	0	0	2	0	2	0	0	2	2	0	1
C218.5	1	3	0	3	0	0	2	0	2	0	0	2	2	0	1
Avg	1	3	0.4	2.6	0	0.2	2.2	0	2	0	0	2	2	0	1

CE 8501 DESIGN OF REINFORCED CEMENT CONCRETE ELEMENTS

CE8501	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C301.1	3	3	3	0	0	2	0	3	0	0	0	2	1	0	2
C301.2	3	3	3	0	0	2	0	3	0	0	0	2	3	0	2
C301.3	3	3	3	0	0	2	0	3	0	0	0	2	2	0	1
C301.4	3	3	3	0	0	2	0	3	0	0	0	2	2	0	2
C301.5	3	3	3	0	0	2	0	3	0	0	0	2	2	0	1
Avg	**3**	**3**	**3**	**0**	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**2**	**2**	**0**	**2**

CE8502 STRUCTURAL ANALYSIS I

CE8502	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C302.1	3	2	0	2	1	2	0	0	0	0	0	3	3	1	0
C302.2	3	2	0	2	1	2	0	0	0	0	0	3	3	1	0
C302.3	3	2	0	2	1	2	0	0	0	0	0	3	3	1	0
C302.4	3	2	0	2	1	2	0	0	0	0	0	3	3	1	0
C302.5	3	2	0	2	1	2	0	0	0	0	0	3	3	1	0
Avg	**3**	**2**	**0**	**2**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**1**	**0**

EN8491 WATER SUPPLY ENGINEERING

EN8491	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C303.1	0	0	1	1	1	3	0	0	2	0	0	0	1	0	2
C303.2	0	0	1	1	1	2	0	0	1	0	0	0	1	0	3
C303.3	0	0	3	1	1	3	0	0	3	0	0	0	3	0	2
C303.4	0	0	1	1	1	1	0	0	1	0	0	0	1	0	3
C303.5	0	0	3	1	1	1	0	0	1	0	0	0	3	0	1
Avg	**0**	**0**	**1.8**	**1**	**1**	**2**	**0**	**0**	**1.6**	**0**	**0**	**0**	**1.8**	**0**	**2.2**

CE8591 FOUNDATION ENGINEERING

CE8591	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C304.1	1	3	2	1	0	1	3	3	3	0	3	2	2	0	1
C304.2	1	3	0	3	0	0	1	2	0	0	2	2	2	0	1
C304.3	1	3	0	3	0	0	1	2	0	0	2	2	2	0	1
C304.4	1	3	0	3	0	0	1	2	0	0	2	2	2	0	1
C304.5	1	3	0	3	0	0	3	2	0	0	2	2	2	0	1
Avg	**1**	**3**	**0.4**	**2.6**	**0**	**0.2**	**1.8**	**2.2**	**0.6**	**0**	**2**	**2**	**2**	**0**	**1**

GI8014 GEOGRAPHIC INFORMATION SYSTEM

GI8014	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C305.1	3	0	0	0	2	0	0	0	0	0	0	0	3	1	1
C305.2	3	0	0	0	2	0	0	0	0	0	0	0	3	1	1
C305.3	3	0	0	0	2	0	0	0	0	0	0	0	3	1	1
C305.4	3	0	0	0	2	0	0	0	0	0	0	0	3	1	1
C305.5	3	0	0	0	2	0	0	0	0	0	0	0	3	1	1
Avg	3	0	0	0	2	0	0	0	0	0	0	0	3	1	1

C306		**Open Elective**	**Unknown**

CE8511 SOIL MECHANICS LABORATORY

CE8511	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C307.1	3	2	1	3	0	0	0	0	0	0	0	0	3	0	0
C307.2	3	2	1	3	0	0	0	0	0	0	0	0	3	0	0
C307.3	3	3	1	3	0	0	0	0	0	0	0	0	3	0	0
C307.4	3	3	1	3	0	0	0	0	0	0	0	0	3	0	0
C307.5	3	3	1	3	0	0	0	0	0	0	0	0	3	0	0
Avg	**3**	**3**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**

EN8512 WATER AND WASTE WATER ANALYSIS LABORATORY

EN8512	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C308.1	0	3	0	3	0	0	1	0	0	1	0	0	3	0	2
C308.2	0	1	0	1	0	0	3	0	0	1	0	0	1	0	3
C308.3	0	3	0	3	0	0	1	0	0	1	0	0	3	0	3
C308.4	0	1	0	1	0	0	3	0	0	1	0	0	1	0	3
C308.5	0	1	0	1	0	0	1	0	0	1	0	0	1	0	3
Avg	0	1.8	0	1.8	0	0	1.8	0	0	1	0	0	1.8	0	3

CE8513 SURVEY CAMP (2 weeks –During IV Semester)

CE8513	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C309.1	3	2	2	3	0	0	0	0	3	2	1	0	2	3	1
C309.2	3	2	2	3	0	0	0	0	3	2	1	0	2	3	1
C309.3	3	2	2	3	0	0	0	0	3	2	1	0	2	3	1
C309.4	3	2	2	3	0	0	0	0	3	2	1	0	2	3	1
C309.5	3	2	2	3	0	0	0	0	3	2	1	0	2	3	1
Avg.	**3**	**2**	**2**	**3**	**0**	**0**	**0**	**0**	**3**	**2**	**1**	**0**	**2**	**3**	**1**

CE 8601 DESIGN OF STEEL STRUCTURES

CE68601	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C310.1	3	3	3	0	0	2	0	3	0	0	0	2	1	0	2
C310.2	3	3	3	0	0	2	0	3	0	0	0	2	3	0	2
C310.3	3	3	3	0	0	2	0	3	0	0	0	2	2	0	1
C310.4	3	3	3	0	0	2	0	3	0	0	0	2	2	0	2
C310.5	3	3	3	0	0	2	0	3	0	0	0	2	2	0	1
Avg	**3**	**3**	**3**	**0**	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**2**	**2**	**0**	**2**

CE 8602 STRUCTURAL ANALYSIS II

CE8602	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C311.1	3	2	1	2	1	2	0	0	0	0	0	3	3	1	0
C311.2	3	2	1	2	1	2	0	0	0	0	0	3	3	1	0
C311.3	3	2	1	2	1	2	0	0	0	0	0	3	3	1	0
C311.4	3	2	1	2	1	2	0	0	0	0	0	3	3	1	0
C311.5	3	2	1	2	1	2	0	0	0	0	0	3	3	1	0
Avg	**3**	**2**	1	**2**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**1**	**0**

CE8603 IRRIGATION ENGINEERING

CE8603	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C312.1	3	2	0	0	1	0	0	0	0	0	0	0	3	1	1
C312.2	3	2	0	0	1	0	0	0	0	0	0	0	3	1	1
C312.3	3	2	0	0	1	0	0	0	0	0	0	0	3	1	1
C312.4	3	2	0	0	1	0	0	0	0	0	0	0	3	1	1
C312.5	3	2	0	0	1	0	0	0	0	0	0	0	3	1	1
Avg	3	2	0	0	1	0	0	0	0	0	0	0	3	1	1

CE8604 HIGHWAYENGINEERING

CE8604	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C313.1	3	2	1	0	0	0	0	0	0	0	0	0	3	1	2
C313.2	3	3	1	0	0	0	0	0	0	0	0	0	3	1	2
C313.3	3	3	1	0	0	0	0	0	0	0	0	0	3	1	2
C313.4	3	3	1	0	0	0	0	0	0	0	0	0	3	1	2
C313.5	3	3	1	0	0	0	0	0	0	0	2	0	3	1	2
Avg	**3**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.4**	**0**	**3**	**1**	**2**

EN8592 WASTEWATER ENGINEERING

EN8592	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C314.1	3	3	0	2	0	0	0	0	0	0	0	0	3	0	1
C314.2	3	2	0	2	0	0	0	0	0	0	0	0	2	0	3
C314.3	3	2	0	3	0	0	0	0	0	0	0	0	2	0	3
C314.4	3	2	0	2	0	0	0	0	0	0	0	0	1	0	3
C314.5	3	2	0	2	0	0	0	0	0	0	0	0	2	0	3
Avg	**3**	**2.2**	**0**	**2.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2.6**

C315		ELECTIVE	Unknown

CE8611 HIGHWAY ENGINEERING LABORATORY

CE8611	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C316.1	3	1	3	0	0	0	0	0	0	0	0	0	3	1	2
C316.2	3	1	3	0	0	0	0	0	0	0	0	0	3	1	2
C316.3	3	1	3	0	0	0	0	0	0	0	0	0	3	1	2
C316.4	3	1	3	0	0	0	0	0	0	0	0	0	3	1	2
C316.5	3	1	3	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3	1	2
Avg	**3**	**1**	3	0	0	0	0	0	0	0	0	0	**3**	**1**	**2**

CE8612 IRRIGATION AND ENVIRONMENTAL ENGINEERING DRAWING

CE8612	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C317.1	3	1	3	3	0	0	0	0	0	0	0	0	3	1	2
C317.2	3	1	3	3	0	0	0	0	0	0	0	0	3	1	2
C317.3	3	1	3	3	0	0	0	0	0	0	0	0	3	1	2
C317.4	3	1	3	3	0	0	0	0	0	0	0	0	3	1	2
C317.5	3	1	3	3	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3	1	2
Avg	**3**	**1**	3	3	0	0	0	0	0	0	0	0	**3**	**1**	**2**

CE 8701 ESTIMATION COSTING AND VALUATION ENGINEERING

CE8701	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C401.1	3	0	0	3	0	3	0	2	0	0	3	2	1	0	3
C401.2	3	0	0	3	0	3	0	2	0	0	3	2	3	0	3
C401.3	3	0	0	3	0	3	0	2	0	0	3	2	3	0	2
C401.4	3	0	0	3	0	3	0	2	0	0	3	2	1	0	1
C401.5	3	0	0	3	0	3	0	2	0	0	3	2	2	0	2
Avg	**3**	**0**	**0**	**3**	**0**	**3**	**0**	**2**	**0**	**0**	**3**	**2**	**2**	**0**	**2**

CE8702 RAILWAYS, AIRPORT AND HARBOUR ENGINEERING

CE8702	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C402.1	0	2	0	3	0	0	1	0	3	0	0	0	3	3	3
C402.2	0	2	0	3	0	0	2	0	3	0	0	0	3	3	3
C402.3	0	3	0	3	0	0	1	0	3	0	0	0	3	3	3
C402.4	0	3	0	3	0	0	2	0	3	0	0	0	3	3	3
C402.5	0	3	0	3	0	0	2	0	3	0	0	0	3	3	3
Avg	**0**	**2.6**	0	**3**	**0**	**0**	**1.6**	**0**	**3**	**0**	**0**	**0**	**3**	**3**	**3**

CE 8703 STRUCTURAL DESIGN AND DRAWING

CE8703	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C403.1	3	3	3	0	0	2	0	3	0	0	0	2	2	3	1
C403.2	3	3	3	0	0	2	0	3	0	0	0	2	2	3	1
C403.3	3	3	3	0	0	2	0	3	0	0	0	2	2	3	1
C403.4	3	3	3	0	0	2	0	3	0	0	0	2	2	3	1
C403.5	3	3	3	0	0	2	0	3	0	0	0	2	2	3	1
Avg	**3**	**3**	**3**	**0**	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**2**	**2**	**3**	**1**

CE8007– TRAFFIC ENGINEERING AND MANAGEMENT

CE8007	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C404.1	3	1	0	2	0	0	1	0	1	0	3	0	3	0	3
C404.2	3	1	0	2	0	0	1	0	1	0	3	0	3	0	3
C404.3	3	1	2	2	0	0	2	2	1	0	3	0	3	0	3
C404.4	2	1	0	3	0	0	1	0	1	0	3	0	3	0	3
C404.5	3	1	2	3	0	0	1	1	1	0	3	0	3	0	3
Avg	**2.8**	**1**	**0.8**	**0.8**	**0**	**0**	**1.2**	**0.6**	**1**	**0**	**3**	**0**	**3**	**0**	**3**

C405		**Open Elective II***	**Unknown**	

CE8711CREATIVE AND INNOVATIVE PROJECT (ACTIVITY BASED 0 SUBJECT RELATED)

CE8711	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C406.1	3	3	2	2	3	2	1	3	2	2	3	2	2	1	3
C406.2	3	3	2	2	3	2	1	3	2	2	3	2	2	1	3
C406.3	3	3	2	2	3	2	1	2	2	3	3	2	1	1	3
C406.4	3	3	2	2	3	2	1	2	2	3	3	2	1	1	3
C406.5	3	3	2	2	3	2	1	2	2	3	3	2	1	1	3
Avg	**3**	**3**	**2**	**2**	**3**	**2**	**1**	**2.4**	**2**	**2.6**	**3**	**2**	**1.4**	**1**	**3**

CE8712 INDUSTRIAL TRAINING (4 Weeks During VI Semester – Summer)

CE8712	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C407.1	0	0	0	2	0	0	0	0	3	3	0	3	3	0	2
C407.2	0	0	0	3	0	0	0	0	2	3	0	3	3	0	2
C407.3	0	0	0	3	0	0	0	0	2	3	0	2	3	0	3
C407.4	0	0	0	1	0	0	0	0	3	3	0	3	2	0	3
C407.5	0	0	0	2	0	0	0	0	3	3	0	2	1	0	3
Avg	**0**	**0**	**0**	**2.2**	**0**	**0**	**0**	**0**	**2.6**	**3**	**0**	**2.6**	2.4	0	2.8

C408		**Professional Elective IV**	**Unknown**

CE8020 MAINTENANCE, REPAIR AND REHABILITATION OF STRUCTURES

CE8020	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C409.1	0	0	0	3	0	3	0	2	0	0	0	3	2	0	3
C409.2	0	0	0	3	0	3	0	2	0	0	0	3	2	0	3
C409.3	0	0	0	2	0	3	0	2	0	0	0	3	1	0	3
C409.4	0	0	0	3	0	3	0	2	0	0	0	3	2	0	3
C409.5	0	0	0	3	0	3	0	2	0	0	0	2	1	0	3

Avg	**0**	**0**	0	**2.8**	**0**	**3**	**0**	**2**	**0**	**0**	**0**	**2.8**	**1.6**	**0**	**3**

CE8811 PROJECT WORK

CE8811	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO410.1	3	3	2	2	2	2	1	3	2	2	3	2	2	2	3
CO410.2	3	3	2	2	2	2	1	3	2	2	3	2	2	2	3
CO410.3	3	3	2	2	2	2	1	3	2	3	3	2	2	2	3
CO410.4	3	3	2	2	2	2	1	3	2	3	3	2	2	2	3
CO410.5	3	3	2	2	2	2	1	3	2	3	3	2	2	2	3
Avg	**3**	**3**	**2**	**2**	**2**	**2**	**1**	**3**	**2**	**2.6**	**3**	**2**	**2**	**2**	**3**