DEPARTMENT OF CIVIL ENGINEERING

COURSE OUTCOMES SUMMARY SHEET

3rd SEM

On successful completion of this course, students should be able to

Course	COURSE OUTCOMES	
C201-Applied Mathematics-III	C 201.1	**Define** Fourier series including half range series; **analyze** Harmonic analysis and variety of its applications. (**level. 1,4)**
	C 201.2	**Describe** Unit step, Unit impulse, Laplace transforms, its properties, Inverse and applications to **illustrate** ordinary differential equations**.(level1,2)**
	C 201.3	**Formulate** and **solve** by direct integration method Linear equation of first order including Homogeneous and Non-homogeneous Linear equations and also method of separation of variables. (**level 5)**
	C 201.4	**Solve** difficult problems using theorems of complex analysis and **apply** Residue theorem to evaluate real integrals**. (level 3,6)**
	C 201.5	**Define** Z-transform, Inverse Z-transform and **solve by** Convolution theorem, Partial fraction, Residue method Hands on these Mathematical topics will make them equipped to **prepare** for higher studies through competitive examinations. (**level 1, 3,)**

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Course	COURSE OUTCOMES	
C202 Introduction To Fluid mechanics	C202.1	**Apply** the concept of fluid statics in different engineering problems. **(level 3)**
	C202.2	**Apply** the principle of fluid kinematics**. . (level 3)**
	C202.3	**Apply** the energy and momentum principle. **(Level 3)**
	C202.4	**Analyze** the pipe flow and open channel flow. **Level 4)**
	C202.5	**Analyze** the flow through the mouthpiece, orifice, notch and weir. .**(Level 4)**

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Course	COURSE OUTCOMES	
C203- Introduction to Solid Mechanics	**C203.1**	**Apply** the concept of stress and strain to **analyze** various types of structures. **(Level 1,3)**
	C203.2	**Determine** the deflections and slope of loaded flexural members. . **(Level 4)**
	C203.3	**Determine** the distribution of shear force, bending moment and transverse shear stress along the loaded beam. **(Level 4)**
	C203.4	**Analyze** shaft and springs under torsional load. **(Level 3)**
	C203.5	**Analyze** various structural elements subjected to combined stresses/combined loads. **(Level 3)**

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Course	COURSE OUTCOMES	
C204 Plan Surveying	C204.1	Describe and apply elevations by applying different techniques. **(Level 1, 3)**
	C204.2	Illustrate the minor instruments and will be familiar with their functioning. **(Level 2)**
	C204.3	Analyze traverse survey, detect and rectify errors.**(Level 4)**
	C204.4	Classify and apply the various methods of traversing with Plane table.**(Level 2, 3)**
	C204.5	Explain and apply the various curves with the field problems.**(Level 2, 3)**

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Course	COURSE OUTCOMES	
C205 Building Materials	C205.1	**Identify** properties of construction material. (Level 1,2)
	C205.2	**Apply** fundamental knowledge of fresh and harden concrete. (Level-3)
	C205.3	**Describe** characteristic of timber and use of eco friendly material in construction. (Level-2)
	C205.4	**Extend** the knowledge about characteristic of paint, varnishes etc. (Level-2)
	C205.5	**Extend** the knowledge about steel, aluminium, glass etc. (Level-2)

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Course	COURSE OUTCOMES	
C206 Fluid Mechanics Lab	C206.1	**Determine** the meta centre height of the ship model and **verification** of Bernoulis equation.**(Level -5,3)**
	C206.2	**Verification** of momentum equation and **study** the variation of coefficient of discharge with Reynolds number.**(Level -3,1)**
	C206.3	**Study** of coefficient of discharge of orifice meter.**(Level -1)**
	C206.4	**Determination** of critical velocity in pipe and head loss coefficient.**(Level -5)**
	C206 5	**Determination** of head loss coefficient in pipe bends.**(Level -2)**

On successful completion of the lab the students should be able to

Course	COURSE OUTCOMES	
C207- Surveying lab	C207.1	**Determine** the elevation of a point relative to a reference elevation using Fly Leveling techniques, enhancing their skills in accurate height measurement.**(level 5)**
	C207.2	**Measure** the sensitivity of the bubble tube in a dumpy level, improving their **understanding** and precision in using leveling instruments.**(level 5, 2)**
	C207.3	**Applying** themethods in contouring and plotting, enabling them to create detailed and accurate topographic maps**(level3)**
	C207.4	**Identify**horizontal angles using both repetition and reiteration methods, ensuring precise angular measurements in their surveying tasks.**(level3)**
	C207.5	**Determining** the position of points using Plane Table Radiation and Intersection methods**(level5)**

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Course	COURSE OUTCOMES	
C208 Building Material	**C208.1**	**Evaluate** different properties of cement through various tests. (Level-6)
	C208.2	**Evaluate** different parameters of aggregates. (Level-6)
	C208.3	**Examine** various test of mild steel under given loading. (Level-4)
	C208.4	**Examine** the compressive strength of wood. (Level-4)
	C208.5	**Evaluate** various conventional construction materials like tiles, etc. (Level-6)

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Course	COURSE OUTCOMES	
C209 Software Laboratory	**C209.1**	**Define** various types of stress and strain developed on determinate and indeterminate member. **(Level-2)**
	C209.2	**Draw** shear force and bending moment diagram for various types of transverse loading and support. **(Level-3)**
	C209.3	**Understand** the force system and **draw** free body diagram to analyze rigid body equilibrium. **(Level-2,3)**
	C209.4	**Apply** stress strain relations in conjunction with elasticity and material properties. (**Level-3)**
	C209.5	**Determine** the mechanical stresses and structural deformations that arise within a body under applied loads. (**Level-4)**