II Year I Semester

COURSE OUTCOMES – CIVIL ENGINEERING

Mathematics –IV

After learning the contents of this paper, the student must be able to

CO1:-Analyze the complex functions with reference to their analyticity, integration using Cauchy's Integral theorem

CO 2:- Find the Taylor's and Laurent's series expansion of complex functions

CO 3:- The bilinear transformation

CO 4:- Express any periodic function in term of sines and cosines

CO 5:- Express a non-periodic function as integral representation

CO 6:- Analyze one dimensional wave and heat equation

Strength of Materials – I

At the end of the course, the student will be able to:

CO 1:- Analyze the statically determinate and indeterminate problems.

CO 2:- Determine the stresses and strains in the members subjected to axial, bending.

CO 3:- Evaluate the slope and deflection of beams subjected to loads.

CO 4:- Determine the principal stresses and strains in structural members

Fluid Mechanics – I

At the end of the course, the student will be able to:

CO 1:- Apply conservation laws to derive governing equations of fluid flows.

CO 2:- Compute hydrostatic and hydrodynamic forces.

CO 3:- Analyze and design simple pipe systems.

CO 4:- Apply principles of dimensional analysis to design experiments.

CO 5:- Compute drag and lift coefficients

Building Material, Construction and Planning

CO 1:- At the end of the course, the student will be able to identify various building materials required for construction & planning

Surveying

At the end of the course, the student will be able to:

CO 1:- Calculate angles, distances and levels

CO 2:- Identify data collection methods and prepare field notes

CO 3:- Understand the working principles of survey instruments

CO 4:- Estimate measurement errors and apply corrections

CO 5:- Interpret survey data and compute areas and volumes

Strength of Material Lab

At the end of the course, the student will be able to:

CO 1:- Conduct tension test on Materials like steel etc.

CO 2:- Conduct compression tests on spring, wood and concrete

CO 3:- Conduct flexural and torsion test to determine elastic constants

CO 4:- Determine hardness of metals

Computer Aided Design – I Lab

At the end of the course, the student will be able to:

CO 1:- Master the usage of AutoCAD commands for drawing 2D & 3D building drawings required for Different civil engineering applications.

Surveying lab – I

CO 1:- To impart the practical knowledge in the field, it is essential to introduce in curriculum. Drawing of Plans and Maps and determining the area are pre-requisites before taking up any Civil Engineering works.

Gender Sensitization Lab

CO 1:- Students will have developed a better understanding of critical issues related to gender in contemporary India.

CO 2:- Students will be sensitized to basic dimensions of the biological, sociological, psychological and legal Aspects of gender. This will be achieved through discussion of materials derived from research, facts, Everyday life, literature and film.

CO 3:- Students will attain a finer grasp of how gender discrimination works in our society and how To counter it.

CO 4:- Students will acquire insight into the gendered division of labour and its relation to Politics and economics.

CO 5:- Men and women students and professionals will be better equipped to work and live together as equals.

CO 6:- will develop a sense of appreciation of women in all walks of life.

CO 7:- Through providing accounts of studies and movements as well as the new laws that provide protection and relief to women, the textbook will empower students to understand and respond to Gender violence.