P.R.GOVERNMENT COLLEGE (A), KAKINADA

DEPARTMENT OF MATHEMATICS

MATHEMATICS COURSE OUTCOMES

Year	Semester	Title of the Paper	Course Out come
I	I	Differential Equations	**CO1.** To understand the concept and apply appropriate methods for solving equations. **CO2.** To get awareness and skills to apply the differential equations in various fields.
	II	Solid Geometry	**CO1.** To understand the concepts of three dimensional geometry and to solve the problems. **CO2.** To express the problems geometrically and then to get the solution. CO3. To accumulate the skill of applying three dimensional geometry to real world problems.
II	III	Abstract Algebra	**CO1.** To analyze the abstract concepts and prove the theorems. CO2. To solve the problems using the theorems. **CO3.** To understand the applications of group theory in various fields.
	IV	Real Analysis	**CO1.** To get clear idea about the real numbers and real valued functions. **CO2.** To obtain the skills of analyzing the concepts and applying appropriate methods for testing converges of a sequence or series. **CO3.** To test the continuity and differentiability and Riemann integrability of a function. **CO4.** To know the Geometrical interpretation of mean value theorems. **CO5.** With the knowledge of sequence and series, to solve the series completion and finding odd man out in analytical skills.

III	V	Ring Theory and Vector Calculus	**CO1.** To understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems. **CO2.** To understand the applications of ring theory in various fields. **CO3.** To get knowledge of vector differentiation, differential operators, line surface and volume integrals. **CO4.** To obtain the skills to convert one type of integral to other types and to solve the problems. **CO5.** To solve the problems on applications of gradient, diverge and curl.
	V	Linear Algebra	**CO1.** To understand the concepts of linear algebra. **CO2.** To improve the skills of analyzing the concepts, to proving the theorems and solving problems. **CO3.** To apply the concepts of linear algebra in different fields.
	VI	**Numerical Analysis & Advanced Numerical Analysis**	**CO1.** To understand the concepts and obtain the interpolation formulae. **CO2.** To understand the different concepts in Numerical Analysis, i.e., finding the solution of equations and deriving the interpolation formulae,, curve fitting, solving system of equations and solving ordinary differential equations. **CO3.** To get skills of applying these concepts in different areas.

	VI	**Special Functions**	**CO1.** To obtain Hermite polynomial, Laguerre polynomial, Legendre's polynomial and Bessel's functions by solving the concerned differential equations and to solve problems on these functions. **CO2.** To know the concepts of Beta and Gamma functions, the relation between theorems and solving the problems. CO 3. To apply all these methods in different fields.