

ANNUAL ACADEMIC PLAN 2023 - 2024

Mathematics-II(B)

Subject Code:- 232

SECOND YEAR

Month/ No. of working days & Periods	Topics to be covered Unit test/ Exams/ Assignments/AP EAPCET classes to be conducted.	Periods allotted for each topic
JUNE -(24)	Syllabus and prerequisites	1
	01. Circle :	
	1.1 Equation of circle -standard form-center and radius of a circle with a given line segment as diameter & equation of circle through three non collinear points - parametric equations of a circle.	4
	1.2 Position of a point in the plane of a circle – power of a point-definition of tangent-length of tangent	4
	1.3 Position of a straight line in the plane of a circle conditions for a line to be tangent – chord joining two points on a circle – equation of the tangent at a point on the circle- point of contact-equation of normal.	2
	1.4 Chord of contact - pole and polar-conjugate points and conjugate lines - equation of chord with given middle point.	3
	1.5 Relative position of two circles- circles touching each other externally, internally common tangents –centers of similitude- equation of pair of tangents from an external point.	7
	AP EAPCET classes on Circles	2
	ASSIGNMENT-I	1

JULY - (24)	02. System of circles:	
	2.1 Angle between two intersecting circles.	5
	2.2 Radical axis of two circles- properties- Common chord and common tangent of two circles – radical Centre Intersection of a line and a Circle.	3
	AP EAPCET classes on system of circles	1
	06. Integration :	
	6.1 Integration as the inverse process of differentiation- Standard forms – properties of integrals.	4
	6.2 Method of substitution- integration of Algebraic, exponential, logarithmic, trigonometric and inverse trigonometric functions. Integration by parts.	7
	UNIT TEST-I From 26-07-2023 to 28-07-2023	1
ASSIGNMENT-II	1	
August - (25) (18P)	6.3 Integration- Partial fractions method.	3
	6.4 Reduction formulae.	3
	AP EAPCET classes on integration	2
	07. Definite Integrals:	
	7.1 Definite Integral as the limit of sum	4
	7.2 Interpretation of Definite Integral as an area.	5
	ASSIGNMENT-III UNIT TEST-II From 24-08-2023 to 26-08-2023	1
QUARTERLY EXAMINATIONS FROM 16.09.2023 TO 23.09.2023		
SEP - (19)	7.3 Fundamental theorem of Integral Calculus.	4
	7.4 Properties.	4
	7.5 Reduction formulae.	5

	7.6 Application of Definite Integral to area	5
	AP EAPCET classes on Definite Integral	1
DUSSEHRA HOLIDAYS FROM 19.10.2023 TO 25.10.2023		
OCT - (25) (19P)	03. Parabola:	
	3.1 Conic sections –Parabola- equation of parabola in standard form-different forms of the parabola – parametric equations	7
	3.2 Equation of tangent normal on the parabola and condition for straight line in to tangent	5
	(Cont..) 3.2 Equation of tangent normal on the parabola and condition for straight line in to tangent	3
	AP EAPCET CLASS ON parabola	2
	ASSIGNMENT-IV UNIT TEST – III From 16-10-2023 to 18-10-2023	1
NOV -(26)	04. Ellipse	
	4.1 Equation of ellipse in standard form Parametric equations.	4
	4.2 Equation of tangent and normal at a point on the ellipse (Cartesian and parametric)- condition for a straight line to be a tangent.	4
Dec-19	AP EAPCET classes on ellipse	2
	05. Hyperbola:	
	5.1 Equation of hyperbola in standard form- Parametric equations.	3
	5.2 Equations of tangent and normal at a point on the hyperbola (Cartesian and parametric)- conditions for a straight line to be a tangent Asymptotes	3
	AP EAPCET class on Hyperbola	2
	08. Differential equations:	

Dec-19	8.1 Formation of differential equation-Degree and order of an ordinary differential equation	4
	8.2 Solving differential equation a) Variables separable method	2
	UNIT TEST-IV From 23-11-2023 to 25-11-2023	1
	ASSIGNMENT-V	1
HALF YEARLY EXAMINATIONS FROM 18.12.2023 TO 23.12.2023		
SANKRANTHI HOLIDAYS 11.01.2024 TO 17.01.2024		
REOPENING AFTER SANKRANTHI HOILDAYS 18-01-2024		
JAN-(19)	8.2 Solving differential equation	
	b) Homogeneous differential equation.	5
	c) Non - Homogeneous differential equation.	5
	d) Linear differential equations.	5
	AP EAPCET class on differential equations	3
	ASSIGNMENT-VI	1
PRE-FINAL EXAMINATIONS FROM 19.01.2024 TO 25.01.2024		
FEB -(22)	REVISION	
	PRACTICAL EXAMINATION IPE 2023 TENATAIVELY 2nd Week of Feb 2024	
MARCH -(23)	DATE OF COMMENCEMENT OF THEORY EXAMINATIONS TENTATIVELY, 1st Week of March 2024	