

**ANNUAL ACADEMIC PLAN 2022-2023**

**MATHEMATICS-II (B)**

**II YEAR**

<b>Month/ No. of working days &amp; Periods</b>	<b>Topics to be covered Unit test/ Exams/ Assignments/EAMCET classes to be conducted.</b>	<b>Periods allotted for each topic</b>
<b>June 14</b>	Syllabus and pre-requisites	<b>02</b>
	<b>01. Circle :</b>	<b>06</b>
	1.1 Equation of circle -standard form-centre 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.	<b>05</b>
	1.2 Position of a point in the plane of a circle – power of a point-definition of tangent-length of tangent	<b>01</b>
	<b>ASSIGNMENT-I</b>	<b>01</b>
<b>July 24</b>	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.	<b>05</b>
	1.4 Chord of contact - pole and polar-conjugate points and conjugate lines - equation of chord with given middle point.	<b>05</b>
	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.	<b>06</b>
	<b>EAMCET classes on Circles</b>	<b>02</b>
	<b>02. System of circles:</b>	<b>05</b>
	2.1 Angle between two intersecting circles.	<b>01</b>
	<b>ASSIGNMENT-II</b>	<b>01</b>
<b>August 22</b>	2.2 Radical axis of two circles- properties- Common chord and common tangent of two circles – radicalcentre.	<b>05</b>
	<b>EAMCET classes on system of circles</b>	<b>01</b>
	<b>06. Integration :</b>	<b>04</b>
	6.1 Integration as the inverse process of differentiation- Standard forms –properties of integrals.	<b>10</b>
	6.2 Method of substitution- integration of Algebraic, exponential, logarithmic,	

	trigonometric and inverse trigonometric functions. Integration by parts. <b>UNIT TEST -I</b> <b>ASSIGNMENT-III</b>	<b>01</b> <b>01</b>
<b>September 25</b>	6.3 Integration- Partial fractions method. 6.4 Reduction formulae <b>EAMCET</b> classes on integration <b>07. Definite Integrals:</b> 7.1 Definite Integral as the limit of sum 7.2 Interpretation of Definite Integral as an area. 7.3 Fundamental theorem of Integral Calculus. 7.4 Properties <b>UNIT TEST -II</b> <b>ASSIGNMENT-IV</b>	<b>05</b> <b>05</b> <b>01</b> <b>03</b> <b>03</b> <b>03</b> <b>03</b> <b>01</b> <b>01</b>
<b>DASERA HOLIDAYS FROM 02-10-2022 TO 09-10-2022</b>		
<b>October 19</b>	7.5 Reduction formulae. 7.6 Application of Definite integral to areas. <b>EAMCET</b> classes on Definite integrals <b>08. Differential equations:</b> 8.1 Formation of differential equation-Degree and order of an ordinary differential equation. 8.2 Solving differential equation by a) Variables separable method b) Homogeneous differential equation. <b>UNIT TEST -III</b>	<b>05</b> <b>04</b> <b>01</b> <b>02</b> <b>03</b> <b>03</b> <b>01</b>
<b>November 24 (18P)</b>	c) Non - Homogeneous differential equation. d) Linear differential equations. <b>EAMCET</b> class on differential equations <b>03. Parabola:</b> 3.1 Conic sections -Parabola- equation of parabola in standard form-different forms of parabola- parametric equations.	<b>04</b> <b>04</b> <b>02</b> <b>08</b>
<b>HALF YEARLY EXAMINATIONS FROM 21-11-2022 TO 26-11-2022</b>		
<b>December 25</b>	3.2 Equations of tangent and normal at a point on the parabola ( Cartesian and parametric)- conditions for straight line to be a tangent. <b>EAMCET</b> classes on parabola <b>04. Ellipse:</b> 4.1 Equation of ellipse in standard form- Parametric equations. 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.	<b>06</b> <b>01</b> <b>06</b> <b>06</b>

	<b>05. Hyperbola:</b> 5.1 Equation of hyperbola in standard form- Parametric equations.	<b>04</b>
	<b>UNIT TEST-IV</b> <b>ASSIGNMENT-V</b>	<b>01</b> <b>01</b>
<b>January</b> <b>23</b>	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 <b>EAMCET class on Ellipse and Hyperbola</b>	<b>04</b>  <b>02</b>
	<b>REVISION</b>	<b>17</b>
<b>PRE-FINAL EXAMINATIONS FROM 06-02-2023 TO 13-02-2023</b>		
<b>February</b> <b>22</b> <b>(9p)</b>	<b>REVISION</b>	<b>9</b>
<b>PRACTICAL EXAMS IPE-2023 FROM 20-02-2023 TO 06-03-2023</b>		
<b>March</b> <b>23</b>	<b>REVISION</b> LAST WORKING DAY : <b>31-03-2020</b>	
<b>THEORY EXAMS IPE-2023 FROM 15-03-2023 TO 04-04-2023</b>		

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