

BOARD OF INTERMEDIATE EDUCATION**ANNUAL ACADEMIC PLAN 2023 - 2024**

Mathematics-II(A)

Subject Code:- 231

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)	1. Complex Numbers:	
	1.1 Complex number as an ordered pair of real numbers-fundamental operations	03
	1.2 Representation of complex numbers in the form $a+ib$	03
	1.3 Modulus and amplitude of complex numbers –Illustrations	03
	1.4 Geometrical and Polar Representation of Complex numbers in the Argand plane-Argand diagram	03
	AP EAPCET class on Complex Numbers	01
	1. De Moivre's Theorem:	
	2.1 De Moivre's theorem – Integral and Rational indices	04
	2.2 nth roots of unity-Geometrical Interpretations–Illustrations.	04
	AP EAPCET class on De Moivre's Theorem	01
	ASSIGNMENT-I	01
	2. Quadratic Expressions:	
	3.1 Quadratic expressions, equations in one variable.	01
	3.2 Sign of quadratic expressions–Change in signs– Maximum and minimum values.	03
	3.3 Quadratic in equalities	02
	AP EAPCET class on Quadratic expressions	01
	3. Theory of Equations:	

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July (24)	4.1 The relation between the roots and coefficients in an equation	03
	4.2 Solving the equations when two or more roots of it are connected by certain relation	05
	UNIT TEST- I	01
	ASSIGNMENT-II	01
	4.3 Equation with real coefficients, occurrence of complex roots in conjugate pairs and its Consequences	04
	4.4 Transformation of equations-Reciprocal Equations.	02
August (25)	UNIT TEST-II	06
	4.4 Transformation of equations-Reciprocal Equations. (Contd.)	03
	AP EAPCET class on Theory of equations	01
	4. Permutations and Combinations:	
	5.1 Fundamental Principle of counting–linear and circular permutations	02
	5.2 Permutations of ‘n’ dissimilar things taken ‘r’ at a time	03
	5.3 Permutations when repetitions allowed	02
	5.4 Circular permutations	02
	5.5 Permutations with constraint repetitions	03
	ASSIGNMENT-III	01
	5.6 Combinations-definitions and certain theorems.	02
	5.6 Combinations-definitions and certain theorems. (Contd.)	03
September (19)	AP EAPCET class on Permutations & Combinations	02
	5. Binomial Theorem:	
	6.1 Binomial theorem for positive integral index	09

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	6.2 Binomial theorem for rational Index (Without proof)	03
	QUARTERLY EXAMINATIONS (16.09.2023 - 23.09.2023)	01
	ASSIGNMENT-IV	01
	DUSSEHRA HOLIDAYS (19.10.2023 TO 25.10.2023)	
	6.2 Binomial theorem for rational Index (Without proof) (Contd.)	03
	6.3 Approximations using Binomial theorem	03
	AP EAPCET class on Binomial theorem	02
	UNIT TEST – III	06
October (25)	6. Partial fractions:	
	7.1 Partial fractions of $f(x)/g(x)$ when $g(x)$ contains non-repeated linear factors.	01
	7.2 Partial fractions of $f(x)/g(x)$ when $g(x)$ Contains repeated and /or non-repeated linear factors.	02
	7.3 Partial fractions of $f(x)/g(x)$ when $g(x)$ Contains repeated and non-repeated (irreducible factors only)	02
	AP EAPCET class on partial fractions	01
	ASSIGNMENT-V	01
	7. MEASURES OF DISPERSION	
	8.1 Range.	01
	8.2 Mean deviation.	03
	8.3 Variance and standard deviation of ungrouped/grouped data.	04
	8.4 Coefficient of variation and analysis of Frequency distribution with equal means but different variances.	04
	AP EAPCET class on Measures of Dispersion	01
	Assignment – VI	01

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November (26)	8. Probability	
	9.1 Random experiments and events.	05
	9.2 Classical definition of probability, Axiomatic approach and addition theorem of probability.	05
	9.3 Independent and dependent events Conditional probability – multiplication theorem and Bayes's theorem.	05
	UNIT TEST - IV	01
December (19)	9.3 Independent and dependent events Conditional probability- multiplication theorem and Bayes's theorem. (Contd.)	01
	AP EAPCET class on probability	02
	10. Random Variables and Probability Distributions:	
	10.1 Random Variables	03
	10.2 Theoretical discrete distributions – Binomial and Poisson Distributions.	05
	AP EAPCET class on Random variables & Random Distribution	01
	Assignment – VII HALF YEARLY EXAMINATIONS (18.12.2023 TO 23.12.2023)	01
January (22)	PRE-FINAL EXAMINATIONS (19.01.2024 TO 25.01.2024)	06
	SANKRANTHI HOLIDAYS (11.01.2024 TO 17.01.2024)	
February (22)	REVISION	
	PRACTICAL EXAMS IPE-2024 (2nd week of FEB 24) (Tentative)	
March (23)	REVISION	
	THEORY EXAMS IPE-2024 (1st Week of Mar 23) (Tentative)	