

COMMECS COLLEGE
Macro Plan (2024-2025)

Subject: Mathematics Teacher: Syed Naimatullah/Aftab Ahmed/khalid Javed/Ayaz Alvi Class: XI(P/E & C/S)

Unit No.	Start Date	End Date	Working days	Teaching days	Topic/Chapter	Contents	Objectives By the end of the unit S.W.A.T.:
1	Thu, 01-Aug	Fri, 02-Aug	02	02	<u>Foundation</u>	1. Polynomial Equation. 2. Solve the quadratic equation using: (i) Quadratic formula method. (ii) Factorization method. (iii) Completing square method. 3. Usage of algebraic & trigonometric formula.	1. Have a review of what they did at the previous level.
2	Mon, 05-Aug	Sat, 10-Aug	06	05	<u>Foundation</u>	4. Polynomial Equation. 5. Solve the quadratic equation using: (i) Quadratic formula method. (ii) Factorization method. (iii) Completing square method. Usage of algebraic & trigonometric formula.	Have a review of what they did at the previous level.
3	Mon, 12-Aug	Fri, 16-Aug	05	04	<u>CH # 1 Complex Number</u>	1. Real & complex number systems. 2 Conjugate, Modulus, Operations on complex number systems.	To find the conjugate, modulus and different operations on Complex number systems.

4	Mon, 19-Aug	Fri, 23-Aug	05	05	<u>CH # 1 Complex Number</u>	1. Real and Imaginary part, Root of Complex Equations.	1.To find the real and imaginary part. To solve the complex Equations
5	Mon, 26-Aug	Sat, 31-Aug	06	05	CH #2 Matrices & Determinants.	1. Properties of matrix operations. 2. Properties of determinants of order	1. To apply the properties of matrix for addition, subtraction & multiplication purpose. 2. To apply the properties of the determinant in evaluating
6	Mon, 02-Sep	Fri, 06-Sep	05	05	CH # 2 Determinants & inverse matrices.	1. Minors & co factors of elements of a given matrix. 2. Ad joint of a matrix. Multiplicative inverse of a square matrix.	1. To find cofactor of a three order matrix & find ad joint of the same.
7	Mon, 09-Sep	Sat, 14-Sep	06	05	CH # 2 Determinants & inverse matrices.	Solving system of three non-homogenous lines equation	To find inverse of a three order matrix by ad joint method & solving equations containing three variables
8	Mon, 16-Sep	Fri, 20-Sep	05	05	CH # 2 Determinants & inverse matrices.	Crammer's rule	Use Crammers rule to solve Equations.
9	Mon, 23-Sep	Sat, 28-Sep	06	05	CH #2 Determinants & inverse matrices.	1. Gauss Elimination Method. 2. Gauss Jordan Method	1. Use Gauss Elimination Method to solve system of Linear Equations Use Gauss Jordan Method to solve system of Linear Equations

10	Mon, 30-Sept	Fri, 04-Oct	05	05	CH # 3 Vectors	<ol style="list-style-type: none"> 1. Vector and its types. 2. Line segment is divided by a position vector. 3. Angle between Vectors. 	<ol style="list-style-type: none"> 1. Use geometrical and analytical representation of vectors for Addition, Subtraction & Multiplication. 2. To prove simple theorems, properties of vector. 3. To find dot and scalar product.
11	Mon, 07-Oct	Sat, 12-Oct	06	05	CH # 3 Vectors	<ol style="list-style-type: none"> 1. Work done by constant forces. 2. Area of Parallelogram. 3. Moment of a force. Scalar Triple product.	<ol style="list-style-type: none"> 4. To find cross or Vector product. 5. To find scalar triple product of three vectors. To find the volume of a parallelepiped and tetrahedron by three vectors.
12	Mon, 14-Oct	Fri, 18-Oct	05	00	CH#10 Trigonometric identities of sum and difference of angles.	1.Sum & product formula for trigonometric functions & their applications.	1. To apply various trigonometric identities in proving problems.
13	Mon, 21-Oct	Sat,26-Oct	06	04	CH # 11 Application Of Trigonometry	1.Solving triangle and Fundamental laws of Trigonometry.	2. To apply various trigonometric laws in proving problems.

Term-I
Total Working Days: 68
Total Teaching Days: 55
Classes Conducted = 40.14 %

14	Mon, 28-Oct	Fri, 01-Nov	05	05	CH # 11 Application Of Trigonometry	Derive formula for circum-radius, in-radius & escribed-radii.	To apply stated formulas to deduce different identities.
15	Mon, 04-Nov	Sat, 9-Nov	06	05	CH# 12 Graphs of Trigonometric and inverse trigonometric function .	1.Periods of trigonometric functions. 2. Plotting of graphs of Trigonometric functions	1.To find periods of a trigonometric functions and plot graph.
16	Mon, 11-Nov	Fri, 15-Nov	05	05	CH# 12 Graphs of Trigonometric and inverse trigonometric function .	Addition and subtraction formulae of inverse trigonometric functions	Apply Addition and subtraction formulae of inverse trigonometric functions
17	Mon, 18-Nov	Sat, 23-Nov	06	05	CH# 12 Graphs of Trigonometric and inverse trigonometric function .	Trigonometric Equations	Solution of Trigonometric Equations
18	Mon, 25-Nov	Sat, 30-Nov	06	05	CH # 7 Mathematical induction.	1. Principle of mathematical induction. Sum of integral powers of natural numbers	1. To prove various kinds of propositions by mathematical induction. To find sum of first n natural numbers .
19	Mon, 02-Dec	Fri, 06- Dec	05	05	CH #7 Binomial theorem	1. Binomial theorem for a positive integral index. 2. General term. 3. Middle term. 4. Binomial theorem for any index. Approximation	1. To expand by means of binomial theorem. To apply general term formula for finding particular terms & other related problems.
20	Mon, 09-Dec	Sat, 14-Dec	06	05	CH # 9 Linear Programming	LP as a planning of allocation	To find LP and obtain optimal result

21	Mon, 16-Dec	Fri, 20-Dec	05	03	CH # 9 Linear Programming	LP as a planning of allocation	To find LP and obtain optimal result
22	Mon, 23-Dec	Sat, 28-Dec	00	00	WINTER VACATIONS		
23	Mon, 30-Dec	Fri, 03-Jan	03	00	WINTER VACATIONS/ SECOND TERM		
24	Mon, 06-Jan	Sat, 11-Jan	06	00	SECOND TERM		
25	Mon, 13-Jan	Fri, 17-Jan	05	02	SECOND TERM		
Term-II Total Working Days: (68+58= 126) Total Teaching Days: (55+40=95) Classes Conducted = 69.34							
26	Mon, 20-Jan	Sat, 25-Jan	06	05	CH#8 Function and Graph	1.Function as a rule of correspondence	1. Define types of function. 2. Define domain, co-domain, range and inverse of a function.
27	Mon, 27-Jan	Fri, 31-Jan	04	04	CH#8 Function and Graph	Graphical representation of a function	Sketch graph of different types of function.
28	Mon, 03-Feb	Sat, 08-Feb	05	04	CH # 6 Permutation, Combination and Probability	1.Basic terminology used in permutation, combination and probability.	To find complementary event of a sample space and apply addition law for calculating probability.
29	Mon, 10-Feb	Fri, 14-Feb	04	04	CH # 6 Permutation, Combination and Probability	1. Probability measure.	To find complementary event of a sample space and apply addition law for calculating probability.

30	Mon, 17-Feb	Sat, 22-Feb	06	05	CH # 6 Permutation, Combination and Probability	1. Addition law of probability.	To find addition law for calculating probability.
31	Mon, 24-Feb	Fri, 28-Feb	05	05	CH# 4 Sequence & series.	1. Arithmetic progression. 2. Arithmetic Mean 3. Sum of the terms of arithmetic series.	To apply standard form of an A.P for nth term & sum in solving problems.
32	Mon, 03-Mar	Sat, 08-Mar	05	05	CH # 4 Sequence & series.	1. Geometric Progression. 2. Geometric Mean Sum of the terms of geometric series.	To find one or more geometric means between two numbers & related problems.
33	Mon, 10-Mar	Fri, 14-Mar	05	05	CH# 4 Sequence & series.	1. Harmonic progression. 2. Harmonic Mean 3. Relation between AM, GM and HM	To apply standard form of an A.P for nth term & sum in solving problems.
34	Mon, 17-Mar	Sat, 22-Mar	04	04	CH #5 Miscellaneous Series	1. Arithmetico-Geometric series. 2. Method of difference	Define Arithmetico-Geometric series. Define Method of difference.
35	Mon, 24-Mar	Sat, 29-Mar	00	00	CH #5 Miscellaneous Series	Summation of series using partial fraction.	To apply summation of series using partial fraction.
36	Mon, 31 Mar	Fri, 4 Apr	01	01	REVISION CLASSES		
37	Mon, 7 Apr	Sat, 12 Apr	06	00	PRELIMINARY EXAMS		
38	Mon, 14 Apr	Fri, 18 Apr	05	00	PRELIMINARY EXAMS		
Term-III Total Working Days: (126+57=183) Total Teaching Days: (95+42=137) Classes Conducted = 100 %							

Checked By HOD: _____

