

GOVT. COLLEGE CHILRO (MAHENDERGARH)

Lesson Plan

Name of the Assistant/ Associate Professor: Anuja yadav..... Sem.....2nd

Class and Section: B.Sc. 1st year + BA 1st Subject: Maths. (Number Th. & Trigonometry)

Month	Topics
12 th Jan. 2024 to 31 st Jan. 2024	Divisibility, G.C.D, L.C.M, Primes, Fundamental Thm of Arithmetic, Linear of Arithmetic, Linear Congruences, Linear Congruences, Fermat's thm, Wilson's theorem and its converse. Linear Diophantine eqn in two variables.
1 st Feb. 2024 to 29 th Feb. 2024	Complete residue system and reduced residue system mod m . Chinese Remainder thm, Quadratic residues, Legendre's symbols. Lemma of Gauss, The function $d(n)$ & $\sigma(n)$, Moebius function and Moebius inversion formula.
1 st March 2024 to 31 st March 2024	De Moivre's Theorem and its Applications. Expansion of trigonometrical functions. Direct circular and hyperbolic functions and their properties.
1 st April 2024 to 30 th April 2024	Inverse circular & hyperbolic and their properties. Logarithm of a complex quantity. Gregory's series. Summation of Trigonometry series. Test and Assignment

Anuja yadav
Teacher's Signature

GOVT. COLLEGE CHHILRO (MAHENDERGARH)

Lesson Plan

Name of the Assistant/ Associate Professor: Anuja Yadav..... Sem..... 4th.....

Class and Section: B.Sc. 2nd + B.A. 2nd year Subject: Math. (Sequence & Series)

Month	Topics
12 th Jan. 2024 to 31 st Jan. 2024	Boundedness of the set of real numbers, l.u.b, g.l.b, neighborhoods, limit points, Bolzano-Weierstrass thm, Open covers, Compact set and Heine-Borel theorem
1 st Feb. 2024 to 29 th Feb. 2024	Sequence: Real Seq. & their Convergence, Cauchy's seq., Subsequence, subsequential limit, Infinite series: Convergence & divergence of Infinite series, Convergence and divergence of geometric series, Hyper Harmonic series or p-series.
1 st March 2024 to 31 st March 2024	Infinite series: D-Alembert's ratio test, Raabe's test, Logarithm test, Cauchy's Nth root test, Gauss test, Cauchy's integral test, Cauchy's condensation test.
1 st April 2024 to 30 th April 2024	Alternating series, Leibnitz's test, Arbitrary series: Abel's lemma, Abel's test, Dirichlet test, and theorem, Multiplication of series, Cauchy's product series, Convergence and absolute convergence of infinite product test & Assignment

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GOVT. COLLEGE CHHILRO (MAHENDERGARH)

Lesson Plan

Name of the Assistant/ Associate Professor: Anuja Yadav Sem. 4th

Class and Section: B.Sc 2nd + B.A 2nd year Subject: Maths. (Programming in C & Numerical Methods)

Month	Topics
12 th Jan. 2024 to 31 st Jan. 2024	Programmer's model of a computer, Algorithms, Flow chart, Data type, Operators and expressions, Input/Output functions,
1 st Feb. 2024 to 29 th Feb. 2024	Decisions control structure: Decision statements, Logical & conditional statements, Loops, Functions, Preprocessors and Arrays. Strings, operations on characters.
1 st March 2024 to 31 st March 2024	Structures, Pointers, Solution of Algebraic and Transcendental Equation Bisection, Regula-Falsi, Newton-Raphson's method, Newton's iterative method for finding both root, Order of convergence of above methods.
1 st April 2024 to 30 th April 2024	Simultaneous linear algebraic equation: Gauss-elimination method, Gauss-Jordan, LU Decomposition, Crout's, Cholesky, Iterative, Jacobi's, Gauss-Seidal's methods.

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GOVT. COLLEGE CHILRO (MAHENDERGARH)

Lesson Plan

Name of the Assistant/ Associate Professor: Anuja Yadav Sem... 6th

Class and Section: B.Sc 3rd + B.A 3rd year Subject: Maths (Real & Complex Analysis.)

Month	Topics
12 th Jan. 2024 to 31 st Jan. 2024	Jacobians, Beta and Gamma functions, Double and Triple Integrals, Dirichlet's integrals, changes of order of integration in double integrals.
1 st Feb. 2024 to 29 th Feb. 2024	Fourier's series: Fourier's expansion of piecewise monotonic function, Dirichlet's conditions, Parseval's identity for Fourier series, Half range series, Change of intervals.
1 st March 2024 to 31 st March 2024	Extended Complex plane, continuity and differentiability of complex functions. Analytic function, C-R Equations, Harmonic functions.
1 st April 2024 to 30 th April 2024	Mappings by elementary functions: Translation, rotation, Conformal mapping, Mobius transformations, Fixed points, Cross ratio, Inverse points & Critical mapping (Text and Assignment).

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