

Lesson Plan.

Session - 2022 - 2023

Dr. ASHOK KUMAR.

Dept - Mathematics.

S.M.S.D Govt College Nangal choudhary

Class - B.A/BSc. IInd.

Paper - Sequence and series.

17 Jan to 31 Jan 2023

- * Introduction of set and its type.
- * Boundedness of set of Real numbers.
- * Least upper bound & Greatest Lower bound of A set

1 Feb to 28 Feb 2023

- * Neighbourhoods of a point
- * Archimedean property of Reals.
- * Interior point, isolated point limit point
- * Open set, close set Interior of a set

1 March to 31 March 2023

- * Real sequence and their convergence.
- * Theorems on limits of sequence.
- * Bounded and monotonic sequence.
- * Cauchy's sequence subsequences and subsequential limits

1 April to 30 April - 2023

- * Limit series.
- * D'Albert Ratio test, Cauchy roots test, Raab's test
- * Logarithmic test, de-Morgan and Bertrand's test
- * Cauchy n th root test, Gauss test, Cauchy integral test

1 May - onwards.

- * Alternating series, Leibnitz's test, absolute and conditional convergence.
 - * Abel's Lemma, Abel's test
 - * Dirichlet's test, Insertion and removal of Parenthesis, Dirichlet's theorem.
 - * Riemann's Re-arrangement theorem.
- Reversion and unet test for sequence & series.