**Govt. College, Alewa (Jind)**

**Teacher:- Dr Sonu Jangra Subject:- Elements of Algebra & Number Theory**

**Session:- 2023-24 Semester.- Even (31 Jan. 2024 to 15 May. 2024)**

**Class:- B.A./B.Sc. 2nd Sem (NEP-2020)**

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| **Sr No.** | **Week & Date** | **Topics/ Chapters to be covered/Events** |
| **1.** | **31st Jan. 24 to 03th Feb. 24** | Matrices  (Symmetric, Skew-Symmetric Matrices) |
| **2.** | **05th Feb. 24 to 10th Feb. 24** | Matrices (Hermitian, Skew-Hermitian Matrices) |
| **3.** | **12th Feb. 24 to 17th Feb. 24** | Orthogonal and Unitary Matrices  Assignments |
| **4.** | **19th Feb. 24 to 24th Feb. 24** | Rank of a Matrix |
| **5.** | **26th Feb. 24 to 02nd Mar. 24** | Eigen values, Eigen Vectors |
| **6.** | **04th Mar. 24 to 09th Mar. 24** | Characteristic Equation of a Matrix |
| **7.** | **11th Mar. 24 to 16th Mar. 24** | Relation Between the Roots and Coefficients of an Equation |
| **8.** | **18th Mar. 24 to 22th Mar. 24** | Transformation of Equations  Internal Test |
| **9.** | **28th Mar. 24 to 06th Apr. 24** | Descarte’s Rule of Signs  Assignments |
| **10.** | **08th Apr. 24 to 13th Apr. 24** | Solution of cubic and Biquadratic Equations |
| **11.** | **15th Apr. 24 to 20th Apr. 24** | Divisibility |
| **12.** | **22th Apr. 24 to 27th Apr. 24** | Congruences  Assignments |
| **13.** | **29th Apr. 24 to 04th May 24** | Fermat’s, Euler’s, Wilson’s and Chinese Remainder Theorem  Internal Test |
| **14.** | **06th May 24 to 15th May 24** | Short Answer Questions, Discussed Previous Question Papers |
| **15.** | **16th May 24 onwards** | University Examinations |

Teacher’s Sign.

**Govt. College Alewa (Jind)**

**Teacher :- Dr Sonu Jangra Subject:- Sequences and Series Session:- 2023-24 Semester:- Even (31 Jan. 2024 to 15 May. 2024)**

**Class:- B.A./BSc. 4th Sem.**

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| **Sr. No.** | **Week** | **Topics/ Chapters to be covered/Events** |
| **1.** | **31st Jan. 24 to 03th Feb. 24** | Basic Review |
| **2.** | **05th Feb. 24 to 10th Feb. 24** | Topology of Real Numbers |
| **3.** | **12th Feb. 24 to 17th Feb. 24** | Topology of Real Numbers  Assignments |
| **4.** | **19th Feb. 24 to 24th Feb. 24** | Sequences |
| **5.** | **26th Feb. 24 to 02nd Mar. 24** | Sequences with assignments |
| **6.** | **04th Mar. 24 to 09th Mar. 24** | Infinite Series  Internal Test |
| **7.** | **11th Mar. 24 to 16th Mar. 24** | Infinite Series with assignments |
| **8.** | **18th Mar. 24 to 22th Mar. 24** | Infinite Series continued  Assignments |
| **9.** | **28th Mar. 24 to 06th Apr. 24** | Alternating Series |
| **10.** | **08th Apr. 24 to 13th Apr. 24** | Alternating Series  Internal Test |
| **11.** | **15th Apr. 24 to 20th Apr. 24** | Arbitrary Series  Assignments |
| **12.** | **22th Apr. 24 to 27th Apr. 24** | Infinite Products |
| **13.** | **29th Apr. 24 to 04th May 24** | Assignments |
| **14.** | **06th May 24 to 15th May 24** | Assignments, Short Answer Questions, Discussion of Previous Question Papers. |
| **15.** | **16th May 24 onwards** | University Examinations |

Teacher’s Sign.

**Govt. College Alewa (Jind)**

**Teacher :- Dr Sonu Jangra Subject:- Linear Algebra Session:- 2023-24 Semester:- Even (31 Jan. 2024 to 15 May. 2024)**

**Class:- B.A./BSc. 6th Sem.**

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| **Sr. No.** | **Week** | **Topics/ Chapters to be covered/Events** |
| **1.** | **31st Jan. 24 to 03th Feb. 24** | Basic Review |
| **2.** | **05th Feb. 24 to 10th Feb. 24** | Vector Spaces and Subspaces  Assignments |
| **3.** | **12th Feb. 24 to 17th Feb. 24** | Basis and Dimension  Assignments |
| **4.** | **19th Feb. 24 to 24th Feb. 24** | Quotient Space |
| **5.** | **26th Feb. 24 to 02nd Mar. 24** | Linear Transformations  Internal Test |
| **6.** | **04th Mar. 24 to 09th Mar. 24** | Rank and Nullity  Assignments |
| **7.** | **11th Mar. 24 to 16th Mar. 24** | Algebra of Linear Transformations |
| **8.** | **18th Mar. 24 to 22th Mar. 24** | Matrix of a Linear Transformations  Assignments |
| **9.** | **28th Mar. 24 to 06th Apr. 24** | Dual Space  Assignments |
| **10.** | **08th Apr. 24 to 13th Apr. 24** | Internal Test  Eigen Values and Eigen Vectors |
| **11.** | **15th Apr. 24 to 20th Apr. 24** | Inner Product Spaces  Assignments |
| **12.** | **22th Apr. 24 to 27th Apr. 24** | Linear Operators on Inner Product Spaces |
| **13.** | **29th Apr. 24 to 04th May 24** | Assignments |
| **14.** | **06th May 24 to 15th May 24** | Short Answer Questions, Discussion of Previous Question Papers. |
| **15.** | **16th May 24 onwards** | University Examinations |

Teacher’s Sign.

**Govt. College, Alewa (Jind)**

**Teacher :- Dr Sonu Jangra Subject:- Environmental Study (VAC)**

**Session:- 2023-24 Semester.- Even (31 Jan. 2024 to 15 May. 2024)**

**Class:- B.Sc./B.Com. 2nd Sem.**

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| **Sr. No.** | **Week** | **Topics/ Chapters to be covered/Events** |
| **1.** | **31st Jan. 24 to 03th Feb. 24** | Introduction to Environmental Studies |
| **2.** | **05th Feb. 24 to 10th Feb. 24** | Introduction to Environmental Studies  Assignments |
| **3.** | **12th Feb. 24 to 17th Feb. 24** | Ecosystems |
| **4.** | **19th Feb. 24 to 24th Feb. 24** | Natural Resources |
| **5.** | **26th Feb. 24 to 02nd Mar. 24** | Natural Resources  Assignments |
| **6.** | **04th Mar. 24 to 09th Mar. 24** | Environmental Pollution |
| **7.** | **11th Mar. 24 to 16th Mar. 24** | Environmental Pollution  Assignments |
| **8.** | **18th Mar. 24 to 22th Mar. 24** | Climate Change |
| **9.** | **28th Mar. 24 to 06th Apr. 24** | Global Warming |
| **10.** | **08th Apr. 24 to 13th Apr. 24** | Internal Test  Environmental Policies |
| **11.** | **15th Apr. 24 to 20th Apr. 24** | Environmental Practices |
| **12.** | **22th Apr. 24 to 27th Apr. 24** | Population and Environment |
| **13.** | **29th Apr. 24 to 04th May 24** | .Disaster Management and Environmental Ethics |
| **14.** | **06th May 24 to 15th May 24** | Short Answer Questions, Discussion of Problems with Assignments, Previous Question Papers. |
| **15.** | **16th May 24 onwards** | University Examinations |

Teacher’s Sign