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

**Teacher:- Dr Sonu Jangra Sub:- Elements of Analytical Geometry & Vector Calculus**

**Session:- 2024-25 Semester.- Even (16 Jan. 2025 to 15 May. 2025)**

**Class:- B.A./B.Sc. 4th Sem (NEP-2020)**

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| **Sr No.** | **Teaching Tenure** | **Topics/ Chapters to be covered/Events** |
| **1.** | **16th Jan. 25 to 15th Feb. 25** | General Equation of Second Degree |
| Confocal Conics |
| Polar Equation of a Conic  Assignments |
| **2.** | **16th Feb. 25 to 15th Mar. 25** | Sphere |
| Cone |
| Cylinder |
| **3.** | **16th Mar. 25 to 15th Apr. 25** | The Conicoid |
| Confocal Conicoids |
| Reduction of Second Degree Equations  Assignments |
| **4.** | **16th Apr. 25 to 15th May. 25** | Multiple Products of Vectors |
| Differentiation of Vectors |
| Gradient, Divergence and Curl |
| Vector Integration, Gauss’s, Green’s and Stokes Theorem |
| Short Answer Questions, Discussed Previous Question Papers |
| **5.** | **16th May 25 onwards** | University Examinations |

**Total Credit = 3+1** Teacher’s Sign.

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

**Teacher:- Dr Sonu Jangra Sub:- Business Mathematics**

**Session:- 2024-25 Semester.- Even (16 Jan. 2025 to 15 May. 2025)**

**Class:- B.Com. 2nd Sem (NEP-2020)**

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| **Sr No.** | **Teaching Tenure** | **Topics/ Chapters to be covered/Events** |
| **1.** | **16th Jan. 25 to 15th Feb. 25** | Differentiation |
| Application of Differentiation  (Maxima and Minima) |
| **2.** | **16th Feb. 25 to 15th Mar. 25** | Integration  Assignments |
| **3.** | **16th Mar. 25 to 15th Apr. 25** | Permutations and Combinations |
| Binomial Theorem |
| Assignments |
| **4.** | **16th Apr. 25 to 15th May. 25** | Linear Programming  (Graphical and Simplex Method) |
| Short Answer Questions, Discussed Previous Question Papers |
| **5.** | **16th May 25 onwards** | University Examinations |

**Total Credit = 2** Teacher’s Sign.

**Govt. College Alewa (Jind)**

**Teacher :- Dr Sonu Jangra Subject:- Linear Algebra Session:- 2024-25 Semester:- Even (16 Jan. 2025 to 15 May. 2025)**

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

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| **Sr No.** | **Teaching Tenure** | **Topics/ Chapters to be covered/Events** |
| **1.** | **16th Jan. 25 to 15th Feb. 25** | Basic Review |
| Vector Spaces and Subspace |
| Basis and Dimension |
| Quotient Space  Assignments |
| **2.** | **16th Feb. 25 to 15th Mar. 25** | Linear Transformations |
| Rank and Nullity |
| Algebra of Linear Transformations  Internal Test |
| **3.** | **16th Mar. 25 to 15th Apr. 25** | Matrix of a Linear Transformations |
| Dual Space |
| Eigen Values and Eigen Vectors  Assignments |
| **4.** | **16th Apr. 25 to 15th May. 25** | Inner Product Spaces |
| Linear Operators on Inner Product Spaces |
| Short Answer Questions, Discussion of Previous Question Papers. |
| **5.** | **16th May onward** | University Examinations |

Teacher’s Sign.

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

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

**Session:- 2024-25 Semester.- Even (16 Jan. 2025 to 15 May. 2025)**

**Class:- UG-2nd Sem (NEP-2020).**

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| **Sr. No.** | **Week** | **Topics/ Chapters to be covered/Events** |
| **1** | **16th Jan. 25 to 15th Feb. 25** | Introduction to Environmental Studies |
| Ecosystems |
| **2.** | **16th Feb. 25 to 15th Mar. 25** | Natural Resources |
| Environmental Pollution |
| Climate Change |
| **3.** | **16th Mar. 25 to 15th Apr. 25** | Global Warming |
| Environmental Policies |
| Environmental Practices |
| **4.** | **16th Apr. 25 to 15th May. 25** | Population and Environment |
| Disaster Management and Environmental Ethics |
| Short Answer Questions, Discussion of Problems with Assignments, Previous Question Papers. |
| **5.** | **16th May 25 onwards** | University Examinations |

**Total Credit = 2**

Teacher’s Sign