**Curriculum Plan: B. Sc. (PS) II Year (Semester III) Algebra (2021-22)**

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| **Teacher Profile:**  **Sanjay Kumar**  Department of Mathematics  Kalindi College, University of Delhi, Delhi- 110008  Mobile: +91-8800982887  **E- mail**: skmpushkar@gmail.com | | C:\Users\hp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\image (1).jpg | **Marks Distribution** | **Theory** | 75 Marks | |
| **Internal Assessment** | Assignments 10 Marks | |
| Class- Test 10 Marks | |
| Attendance 5 Marks | |
| **Classes Assigned** | **Lectures** | 1 per week | |
| **Tutorial Groups**  ( per week per Student) | 1 per week | |
| **Reference** | **[1]** | Gallian, Joseph. A. (2013). Contemporary Abstract Algebra (8th ed.). Cengage Learning India Private Limited,  Fourth impression, 2015. | | | | |
| **[2]** | Friedberg, Stephen H., Insel, Arnold J., & Spence, Lawrence E. (2003). Linear Algebra (4th ed.). Prentice-Hall of India Pvt. Ltd. New Delhi. | | | | |
| **Section** | **Week** | **Topics** | | | |  |
| Session 1 | 1st week Aug, 16th – 21th, 2021 | Definition of vector spaces. | | | |  |
| 2nd week Aug, 23th – 28nd, 2021 | Examples of vector spaces. | | | |
| Session 2 | 3rd week Aug, 31st – Sep 4th, 2021 | Subspace. | | | |  |
| 4th week Sep, 6th - 11th, 2021 | Examples of Subspace. | | | |  |
| 5th week Sep, 13th – 18th, 2021 | Linear independence. | | | |  |
|  | 6th week Sep, 20th – 25th, 2021 | Examples of Linear independence. | | | |  |
|  | 7th week Sep, 27th – Oct 1th, 2021 | Basis and dimension of a vector space. | | | |  |
| Session 3 | 8th week Oct, 4th - 9rd, 2021 | Examples of Basis and dimension of a vector space. | | | |  |
|  | 9th week Oct, 11th - 16th, 2021 | Linear transformations. | | | |  |
|  | 10th week Oct, 18th - 23th, 2021 | Examples of Linear transformations. | | | |  |
|  | 11th week Oct, 25th - 30th, 2021 | Null spaces and Ranges. | | | |  |
| Session 4 | 12th week Nov, 1st – 6th, 2021 | Examples of Null spaces and Ranges. | | | |  |
|  | 13th week Nov, 8nd - 13th, 2021 | Rank-nullity theorem. | | | |  |
|  | 14th week Nov, 15th - 20th, 2021 | Illustrations of the rank-nullity theorem. | | | |  |
| Session 5 | 15th, 16th week Nov, 22rd – Dec 7th, 2021 | Revision and assignment Problems | | | |  |