**Curriculum Plan: B. Sc. (Hons) Mathematics (Semester VI)- ADVANCED GROUP THEORY. (2024-25)-EVEN SEM**

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| **DR. ABHISHEK KR. SINGH**  Assistant Professor  Department of Mathematics  Kalindi College  University of Delhi  Delhi- 110008  Mobile: +91-8375834510  **E- mail**: abhishek@kalindi.du.ac.in | | C:\Users\Abhishek\Pictures\2014-05-28 002\photo.jpg | **Marks Distribution** | **Theory** -90 |
| **Internal Assessment-30** |
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| **Classes Assigned** | **Lectures: 3 per week** |
|  | **References** | **1. JOSEPH A. GALLIAN (CONTEMPORARY ABSTRACT ALGEBRA) 4TH ED.**  **2. DUMMIT AND FOOTE (ABSTRACT ALGEBRA) 8TH ED.** | | |
|  | **Week** | **Topics** | | |
|  | **1st week** | GROUP ACTIONS AND PERMUTATION REPRESENTATION. Continued. | | |
| **2nd week** | GROUP ACTIONS AND PERMUTATION REPRENTATION. | | |
| **3rd week** | STABILIZERS AND KERNELS OF GROUP ACTIONS. Continued. | | |
| **4th week** | STABILIZERS AND KERNELS OF GROUP ACTIONS. | | |
| **5th week** | GROUP ACTING ON THEMSELVES BY LEFT MULTIPLICATIONS AND CONSEQUENCES. Continued. | | |
| **6th week** | GROUP ACTING ON THEMSELVES BY LEFT MULTIPLICATIONS AND CONSEQUENCES. | | |
| **7th week** | CONJUGACY IN Sn. | | |
| **8th week** | SYLOW THEOREMS | | |
| **9th week** | FINITE SIMPLE GROUPS | | |
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|  | **10th week**. | NONSIMPLICITY TESTS | | |
| **11th week** | SOLVABLE GROUPS | | |
|  | **12th week** | COMPOSITION SERIES | | |
| **13th week** | NILPOTENT GROUPS | | |
| **14th week** | JORDAN-HOLDER THEOREM | | |
| **15th week** | REVISION. | | |
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