**Curriculum Plan : B.A.(P), II Year (Semester III)**

**Analytics Geometry & Applied Algebra**

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| **Ms. Garima Gaur**  Assistant Professor  Department of Mathematics  Kalindi College (University of Delhi)  Delhi- 110008  Mobile: 9953227989  **E- mail**: garimagaur@kalindi.du.ac.in | |  | **Marks Distribution** | **Theory** | 75 Marks | |
| **Internal Assessment** | 25 Marks | |
| **Classes Assigned** | **Lectures** | 3 lectures per week | |
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| **Practical** |  | |
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| **References** |  | **1. Anton, Howard; Bivens, Irl & Davis, Stephen (2013). Calculus (10th ed.). Wiley India Pvt. Ltd. New Delhi. International Student Version. India. Reprint 2016.**  **2. Gulberg, Jan. (1997). Mathematics from the Birth of !umbers. W.W. Norton & Co.**  **3. Tucker, Alan (2012). Applied Combinatorics (6th ed.). John Wiley & Sons, Inc.** | | | | |
|  | **Week** | **Topics** | | | |  |
|  | **1st week**  Aug,16th – 21th, 2021 | Vectors in coordinate systems. | | | |  |
| **2nd week**  Aug, 23th – 28nd, 2021 | Vectors viewed geometrically. | | | |
|  | **3rd week**  Aug, 31st – Sep 4th, 2021 | Vectors determined by length and angle. | | | |  |
| **4th week**  Sep, 6th - 11th, 2021 | Dot product | | | |  |
| **5th week**  Sep, 13th – 18th, 2021 | Cross product and their geometrical properties. | | | |  |
|  | **6th week**  Sep, 20th – 25th, 2021 | Cross product and their geometrical properties. | | | |  |
|  | **7th week**  Sep, 27th – Oct 1th, 2021 | Parametric equations of lines in plane. | | | |  |
|  | **8th week**  Oct, 4th - 9rd, 2021 | Parametric equations of lines in plane. | | | |  |
|  | **9th week**  Oct, 11th - 16th, 2021 | Planes in 3-dimensional space. | | | |  |
|  | **10th week**  18th - 23th, 2021 | Planes in 3-dimensional space. | | | |  |
|  | **11th week**  Oct, 25th - 30th, 2021 | Mathematical models for matching jobs, Spelling checker, | | | |  |
|  | **12th week**  Nov,1st – 6th, 2021 | Network reliability, Street surveillance, Scheduling meetings. | | | |  |
|  | **13th week**  8nd - 13th, 2021 | Interval graph modelling and Influence model. | | | |  |
|  | **14th week**  15th - 20th, 2021 | Pitcher pouring puzzle. | | | |  |
|  | **15th week**  Nov, 22rd – Dec 7th, 2021 | Revision and discussion of previous year papers. | | | |  |