**Curriculum Plan: B. A. (P) III (Semester V) General Mathematics- 1 (GE-1)**

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| Ms. Anshu ChotaniDepartment of MathematicsKalindi College, University of Delhi, Delhi- 110008Mobile: +91-9810668790E- mail: achotani@yahoo.com | C:\Users\Prempal\Desktop\anshu.jpg | Marks Distribution  | Theory   |  75 Marks   |
| **Internal Assessment** | Assignments 10 Marks |
| Home Ex 10 Marks |
| Attendance 5 Marks |
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| Reference  | **[1]** | **Andrilli, S., & Hecker, D. (2016). *Elementary Linear Algebr*a (5th ed.). Elsevier India.** |
|  | **[2]** | **Gulberg, Jan. (1997). *Mathematics from the Birth of \_umbers*. W. W. Norton & Company.** |
|  | **[3]** | **Puttaswamy, T. K. (2012). *Mathematical Achievements of Pre-Modern Indian Mathematicians*. Elsevier Inc. USA.** |
|  | **[4]** | **Srinivasiengar, C. N. (1988). *The History of Ancient Indian Mathematics*. The World Press Private Ltd. Calcutta. Digitized Book (2009).** |
| Section  | **Week** | **Topics** |
| Section 1 | **1st week,** *16-21 AUG* | A brief introduction to the lives and information on the works of the mathematiciansAryabhata, Varahamihira, Brahmagupta. |  |
| **2nd week,** 23-28 AUG | A brief introduction to the lives and information on the works of the mathematiciansBhaskara I & II, Mahavira |
| Section 2 | **3rd week,** 31 AUG-4 SEP | A brief introduction to the lives and information on the works of the mathematiciansMadhava, and Paramesvara. |  |
| **4th week,** 6-11 SEP | Matrices, Basic concepts and algebraic operations, Types of matrices, Transpose of a matrix, |  |
| **6th week,** 20-25 SEP | Symmetric and skew-symmetric matrices, Matrix multiplication and its properties |  |
| Section 3 | **7th week,** 27 SEP-1 OCT | Powers of square matrices |  |
| **8th week,** 4-9 OCT | Inverse square matrix and its properties |  |
| **9th week,** 11-16 0CT | Determinant and its properties |  |
| **10th week**., 18-23 OCT | Expansion by rowsand columns |  |
| **11th week,** 25-30 OCT | Cofactors, Matrix singularity, Adjoint matrix |  |
| Section 4 | **12th week,** 1-6 NOV | calculation of inverse |  |
| **13th week,** 8-13 NOV | calculation of inverse |  |
| **14th week,** 15-20 NOV | Cramer’s rule. |  |
| Section 5 | Revision | Cramer’s rule. |  |
| Revision | Problem Discussion |  |