

WORK PLAN (November 2021-April 2022)

Course Name: B.Sc.(H) Mathematics

Semester: I

Paper Code: 32351101

Paper Name: Calculus

Faculty: Dr. Chander Shekhar

Week	Theme/ Curriculum
1	Introduction to vector functions and their graphs
2	Operations with vector valued functions
3	Limits and continuity of vector functions
4	Differentiation and integration of vector functions
5	Modeling ballistics and planetary motion
6	Kepler's second law
7	Curvature
8	Tangential and normal components of acceleration
9	Reduction formulae, derivations
10	Illustrations of Reduction formulae
11	Parametric representation of curves & tracing of Parametric curves
12	Parametric representation of curves
13	Tracing of Parametric curves
14	Tracing of Parametric curves
15	Revision
16	Revision
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Readings/Reference Texts:

1. Strauss, Monty J., Bradley, Gerald L., & Smith, Karl J. (2007). Calculus (3rd ed.). Dorling Kindersley (India) Pvt. Ltd. (Pearson Education). Delhi. Indian Reprint 2011.
2. Anton, Howard, Bivens, Irl, & Davis, Stephen (2013). Calculus (10th ed.). Wiley India Pvt. Ltd. New Delhi. International Student Version. Indian Reprint 2016.
3. Prasad, Gorakh (2016). Differential Calculus (19th ed.). Pothishala Pvt. Ltd. Allahabad.