



# Indraprastha College for Women

## University of Delhi

Course Name:	B.Sc (H) Mathematics
Paper Title:	Vedic Mathematics - III
Unique Paper Code:	
Semester:	3
Faculty(s):	Dr. Suman
Year:	2024

<b>Work Plan</b>			
Period	Unit No.	Learning Objective	Topics to be Covered
1 <sup>st</sup> Aug -3 <sup>rd</sup> Aug	1	Appreciate the Mathematical advancements of Ancient India	Baudhayana Apastamba
5 <sup>th</sup> Aug-10 <sup>th</sup> Aug	1	Appreciate the Mathematical advancements of Ancient India	Aryabhata I, II Bhaskara I, II
12 <sup>th</sup> Aug-17 <sup>th</sup> Aug	1	Appreciate the Mathematical advancements of Ancient India	Lilavati
19 <sup>th</sup> Aug-24 <sup>th</sup> Aug	2	Ability to perform calculations in trigonometric ratios with ease	Introduction of Trigonometric ratios
26 <sup>th</sup> Aug-31 <sup>st</sup> Aug	2	Ability to perform calculations in trigonometric ratios with ease	Trigonometric Identities
2 <sup>nd</sup> Sep-7 <sup>th</sup> Sep	2	Ability to perform calculations in trigonometric ratios with ease	BN of Complementary angles
9 <sup>th</sup> Sep-14 <sup>th</sup> Sep	2	Ability to perform calculations in trigonometric ratios with ease	BN of sum and difference ( $\alpha \pm \beta$ ) of an angle
16 <sup>th</sup> Sep-21 <sup>st</sup> Sep	3	Familiarity with the mathematical procedures of geometry	Application Trigonometry- Height and Distance
23 <sup>rd</sup> Sep-28 <sup>th</sup> Sep	3	Familiarity with the mathematical procedures of geometry	Application Trigonometry- Height and Distance
30 <sup>th</sup> Sep-5 <sup>th</sup> Oct	3	Familiarity with the mathematical procedures of geometry	Inverse Trigonometric Function
7 <sup>th</sup> Oct-12 <sup>th</sup> Oct	3	Familiarity with the mathematical procedures of geometry	Inverse Trigonometric Function
14 <sup>th</sup> Oct-19 <sup>th</sup> Oct	4	Familiarity with the mathematical procedures of geometry	Angle between two lines

21 <sup>st</sup> Oct-26 <sup>th</sup> Oct	4	Familiarity with the mathematical procedures of geometry	Perpendicular distance from point to line
28 <sup>th</sup> Oct-2 <sup>nd</sup> Nov			MID SEMESTER BREAK
4 <sup>th</sup> Nov-9 <sup>th</sup> Nov	4	Familiarity with the mathematical procedures of geometry	Baudhayana Geometry
11 <sup>th</sup> Nov-16 <sup>th</sup> Nov	4	Familiarity with the mathematical procedures of geometry	<i>Jyothishya Shastram</i> - Introduction of Astronomy, Astrology & Time Computation
18 <sup>th</sup> Nov-23 <sup>rd</sup> Nov	4	Familiarity with the mathematical procedures of geometry	<i>Shilpa Shastram</i> - Introduction of temple architecture and constructions
25 <sup>th</sup> Nov-27 <sup>th</sup> Nov		Revision	
28 <sup>th</sup> Nov	DISPERSAL OF CLASSES		

Unit	TOPICS
I	Contribution of Indian Mathematicians -Trigonometry ● Baudhayana ● Apastamba ● Aryabhata I, II ● Bhaskara I, II ● Lilavati
II	Trigonometric Ratios ● Introduction of Trigonometric ratios ● Trigonometric Identities ● BN of Complementary angles ● BN of sum and difference ( $\alpha \pm \beta$ ) of an angle
III	Real-life Applications of Trigonometry ● Application Trigonometry-Height and Distance ● Inverse Trigonometric Function
IV	Vedic Geometry ● Angle between two lines ● Perpendicular distance from point to line ● Baudhayana Geometry ● Jyothishya Shastram-Introduction of Astronomy, Astrology & Time Computation ● Shilpa Shastram- Introduction of temple architecture and constructions
S. No.	Name of Authors/Books/Publishers
1.	Vedic Mathematics, Swami Bharati Krishna Trithaji, Motilal Banarsidas, New Delhi

2.	The Power of Vedic Mathematics with Trigonometry, Atul Gupta, Jaico Publishing house
3.	Vedic Mathematics For All Ages, Vandana Singhal, Motilal Banarsidas Publishers
4.	A Modern Introduction to Ancient Indian Mathematics, T S Bhanumurthy, Wiley Eastern Limited, New Delhi