O. P. JINDAL SCHOOL, SAVITRINAGAR, TAMNAR

Annual Syllabus Break-up for the session 2023-2024

Subject : Mathematics **Class:- XI**

Sl.	Month	No. of Instructional days	No. of periods	Chapters to be taught	Subject enrichment activities	Values to be imparted	Extra content to be taught
1	**April**	21	31	1. Sets	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions	Students will know and understand • Different types of sets • Difference of sets and operation on sets • Word problems connecting to sets in daily life problems • Representing set operations in venn diagram.	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.
2.	**June**	11	16	2 Relations and Functions 3 Trigonometric Functions	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions	Students will know and understand • Ordered pair • cartesian products • Relations of set A to set B. • Number of relations from setA to set B.	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.

						• Difference between relations and functions • Domain and range of real and real valued function and their graphs. • System of measurement of angles. • Relationship between arcs central angle and radius of a circle.	
3	**July**	23	34	3 Trigonometric Functions 4 Complex numbers and quadratic equations	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions	Students will be able to • Solve Trigonometric functions, Trigonometric functions of sum and difference of angles, multiple angles, sum and product transformation of trigonometric ratios. • Define non negative real roots	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.

						• Distinguish between real number and complex number. • Understand the concept of integral power of i. • Write standard form of complex number. • Apply different properties of complex numbers. • Write complex numbers in polar form.	
4	**August**	23	34	5. Linear inequalities 6. Permutations and combinations 7. Binomial Theorem	• Daily practice problems • MCQ • Brain storming • Probing Questions	Students will be able to • Explain different types of inequilities. • Solve different types of inequalities and represent it on number line. • Represent the system of linear inequations on graph paper.	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.

						• Explain factorial of a number • Fundamental principle of counting. • Differentiate between permutations and combinations. • Can calculate the number of ways of selection and arrangement of objects in different situation.	
5	**September**	12	18	7. Binomial Theorem Revision For half yearly exam.	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions	Students will be able to • State and acquire the knowledge of general term of Binomial theorem. • Find the middle term of Binomial theorem and apply Binomial theorem in problem solving.	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.

6	**October**	20	30	8. Sequence and series 9. Straight Lines	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions	Students will be able to Know and understand • Arithmetic progression, geometric progressions. • Sum of sequence to finite and infinite terms • Finding difference in sequence • AM and GM • Sum of special series • Meaning of slope. • Angle between two lines, condition for perpendicular and parallel lines.	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.
7.	**November**	13	19	9. Straight lines 10.Conic Sections	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions • To understand different parts of conic trhough models.	Students will be able to Know and understand • Different forms of equation of straight lines. • Parts of cone and section formed when	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.

						a plane intersect double cone at different angles. • Concept, properties and equations of different shapes of conics like circle, parabola hyperbola and Ellipse. • Practical problems in conic sections.	
8.	**December**	19	28	11. Introduction to Three dimensional geometry 12. Limits and Derivatives	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions	Students will be able to Know and understand • Coordinate points according to their octants. • The distance between two points and apply the to find section formula. • The application of 3D in day to day life. • Indeterminate forms and	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.

						existance of limits. • Use limit to solve indeterminate forms and correlate the concept in Physics and chemistry.	
9.	**January**	22	33	13. Limit and Derivatives 14. Statistics	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions	Students will be able to Know and understand • Meaning of slope . • Use the concept of limit and apply them to find derivative of a function. • Geometrical meaning of dy/dx. • The vaiability in data using the concept of mean deviation and standard deviation. • the use of derivatives and Statistics in day to day life.	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.

10.	**February**	15	22	15. Probability and Revision for annual exam.	• Daily practice problems • MCQ • Peer assesement • Brain storming • Probing Questions	Students will be able to Know and understand • The axiomatic approach to Probability. • Random experiment, Sample space, events and their probability. • Methods of finding probability in case of likely and unlikely events.	MCQ and some extra questions to be discuss in the class from RS Aggarwal and NCERT exempler.

SYLLABUS FOR EXAMINATION

SN	EXAMINATION	MONTH	MAXIMUM MARKS	MAXIMUM MARKS	SYLLABUS(Ch. No.)
1	**TEST – 1**	**July**	**20**	**1 Hr**	**1, 2, 3**
2	**Half Yearly Examination**	**September**	**80**	**3 Hrs.**	**1, 2, 3, 5, 6, 7, 8**
3	**TEST - 2**	**November**	**20**	**1 Hr**	**9, 10**
4	**Annual Examination**	**February**	**80**	**3 Hrs.**	**Full Syllabus**