



# D.M.PUBLIC SCHOOL

PARSIA, PUTKI, DHANBAD

Fortnightly Syllabus Planning (2024-25)

Class: X

Subject: MATHS

New Session begins on 4<sup>th</sup> April, 2024

Sl No	Duration	No of Teaching Days	Syllabus to be covered
1	5 <sup>th</sup> April - 15 <sup>th</sup> April	12.	<p><u>UNIT:- NUMBER SYSTEM</u></p> <p>REAL NUMBER Introduction, Fundamental theorem of arithmetic. Statements after reviewing work done earlier.</p>
2	16 <sup>th</sup> April – 30 <sup>th</sup> April	13.	<p>Proofs of irrationality of <math>\sqrt{2}</math>, <math>\sqrt{3}</math>, <math>\sqrt{5}</math> etc.</p> <p><u>UNIT-II – Polynomial:</u> - Zeros of a polynomial, Relationship b/w zeroes and co-efficient.</p> <p><u>Introduction to trigonometry:</u> - Trigonometry ratio of an acute angle of rights.  Proof of their existence.</p>
3	1 <sup>st</sup> May – 15 <sup>th</sup> May		<p>Value of the T-Ratios of <math>30^\circ</math>, <math>45^\circ</math>, <math>60^\circ</math>, <math>90^\circ</math> Relationship b/w the ratio.</p> <p><u>Pair of linear Equations of two variables</u> Graphical Method of their solution, consistency / inconsistency.</p>
4	16 <sup>th</sup> June – 30 <sup>st</sup> June		<p>Algebraic conditions for number of solutions. Solutions of pair of linear equations by substitution, by eliminations. Simple situational problems.</p>
6	10 <sup>th</sup> July – 31 <sup>th</sup> July		<p><u>ARITHMETIC PROGRESSIONS</u></p> <p>Motivation for studying A.P. Derivation of the <math>N^{\text{th}}</math> term and sum of the first N terms of A.P and their application in solving daily life.</p>
7	1 <sup>st</sup> Aug – 15 <sup>th</sup> Aug		<p><u>TRIANGLES:</u> - Definitions, examples, counters examples of similar triangles.</p> <p>1. Prove basic proportionality theorem.</p> <p>2. (Motivate) if a line divides two sides of a <math>\Delta</math> in the same ratio the line is parallel to the third side.</p> <p>3. If in two <math>\Delta</math>s, the corresponding angles are equal their corresponding sides are proportional and triangles are similar.</p>

8	16 <sup>th</sup> Aug – 31 <sup>st</sup> Aug		<b>STATISTICS:-</b> Mean, Median and mode of grouped data.
9	1 <sup>st</sup> Sep – 12 <sup>th</sup> Sep		<b>QUADRATIC EQUATIONS:-</b> Standard form of quadratic equations  $Qx^2+bx+c=0(q\neq 0)$ solutions of quad. Equations by factorization method and by using quad formula. Relationship b/w discriminant and nature of roots.  application questions.
10	<b>13<sup>st</sup> Sep– 1<sup>th</sup> Oct - MID TERM EXAMINATION</b>		
11	2 <sup>st</sup> Oct – 15 <sup>th</sup> Oct		Co-ordinate Geometry introduction to co-ordinate geometry basic concept of graph. Graph of linear equations. Distance formula. Section formula.  Application questions
12	16 <sup>th</sup> Oct – 31 <sup>st</sup> Oct		<b>TRIGONOMETRIC IDENTITIES</b>  Proof and application of the identities only simple identities to be given.
13			<b>Heights and Distance: -</b>  Basic concept of angle of elevation, Depression, simple problems on height and distances problems should not involve more than two right $\Delta$ .
14	1 <sup>st</sup> Nov – 15 <sup>th</sup> Nov		<b>PROBABILITY:-</b>  Basic concept classical definition of probability. Simple problems on finding the probability of an event.  <b>Areas related to circle :-</b> Basic concept area of sectors and segment of a circle.  Problems based on areas and perimeter / circumference of the above said plane fig.
15	16 <sup>st</sup> Nov – 30 <sup>th</sup> Nov		<b>Surface areas and volumes:-</b>  Surface areas and volumes of combinations of any two of the following :- Cubes, cuboids, sphere ,hemispheres and right circular cylinders/ cones.
16	11 <sup>th</sup> Dec – 24 <sup>st</sup> Dec		<b>CIRCLES:-</b>  Tangent to a circle at point of contact.  C.B.S.E Sample paper solving.
17	3 <sup>st</sup> Jan – 15 <sup>th</sup> Jan		
18	16 <sup>th</sup> Jan – 31 <sup>st</sup> Jan		

19	1 <sup>st</sup> Feb – 15 <sup>th</sup> Feb		
20	<b>20<sup>th</sup> Feb to 8<sup>th</sup> March: Annual Examination</b>		

### Portion For Assessments

Assessment	Portion
PRE MID TERM (PT 1)	REAL NUMBERS , POLYNOMIALS , PAIR OF LINEAR EQUATIONS IN TWO VARIABLE , <b>Introduction to trigonometry, Value of the T-Ratios of 30°,45°,60°,90°</b> <b>Relationship b/w the ratio.</b>
MID TERM	REAL NUMBERS , POLYNOMIALS , PAIR OF LINEAR EQUATIONS IN TWO VARIABLE , <b>Introduction to trigonometry, Value of the T-Ratios of 30°,45°,60°,90°</b> <b>Relationship b/w the ratio.</b> <b>TRIANGLES, A.P, STATISTICS</b>
PRE BOARD	REAL NUMBERS , POLYNOMIALS , PAIR OF LINEAR EQUATIONS IN TWO VARIABLE ,  <b>INTRODUCTION TO TRIGONOMETRY, VALUE OF THE T-RATIOS OF 30°,45°,60°,90°</b> <b>RELATIONSHIP B/W THE RATIO.</b>  <b>TRIANGLES, A.P, STATISTICS , QUADRATIC EQUATIONS , CIRCLE, SURFACE AREAS AND VOLUMES,</b> <b>AREAS RELATED TO CIRCLE ,_PROBABILITY, TRIGONOMETRIC IDENTITIES, HEIGHTS AND DISTANCE</b> <b>CO-ORDINATE GEOMETRY</b>
ANNUAL	