



Board of Secondary Education, Rajasthan, Ajmer

DELETED PORTION FOR EXAM 2021

Subject: Mathematics

Subject Code: 09

Class: 10th (2020-21)

Unit No.	Name of Unit	Name of Chapter	Topics Removed
1	Vedic mathematics	Vedic mathematics	Solution of Simple equations using Vedic Mathematics
2	Number Systems	Real Numbers	Completely deleted
3	Algebra	Polynomials	Statement and simple problems on division algorithm for polynomials with real coefficients
		Pair of Linear Equations in Two Variables	Cross multiplication method
		Quadratic Equations	Situational problems based on equation reducible to quadratic equations
		Arithmetic Progressions	Application in solving daily life problems based on sum to n terms
4	Coordinate Geometry	Coordinate Geometry	Area of a triangle
5	Geometry	Triangles	Proof the following theorems are deleted The ratio of the areas of two similar triangles is equal to the ratio of the squares of their corresponding sides In a triangle, if the square on one side is equal to sum of the square on the other two sides, the angle opposite to the first side is a right angle
		Circles	No deletion
		Constructions	Construction of a triangle similar to a given triangle
6	Trigonometry	Introduction to Trigonometry	Motivate the ratios whichever are defined at 0° and 90°
		Trigonometric Identities	Trigonometric ratios of complementary angles
		Heights and Distances	No deletion
7	Mensuration	Areas Related to Circles	Problems on central angle of 120°
		Surface Areas and Volumes	Frustum of a cone
8	Statistics & Probability	Statistics	Step deviation method for finding the mean Cumulative frequency graph
		Probability	No deletion



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Plane of Examination of this subject is as follows :-

Question Paper	Time (Hours)	Marks for the Paper	Assessment	Marks
One-Paper	3.15	80	20	100

COURSE FOR EXAM 2021

Unit	Name of Unit	Marks
1	Vedic Mathematics	05
3	Algebra	13
4	Trigonometry	12
5	Coordinate Geometry	06
6	Geometry	20
7	Mensuration	10
8	Statistics and Probability	10
9	Road Safety Education	4
	Total	80

UNIT 1: VEDIC MATHEMATICS

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Basic concepts of vedic mathematics – Importance of vedic mathematics, Exercise and expansion of basic operation, Square operation, Cube operation, Square roots and Cube roots.

UNIT 3: ALGEBRA

13

(a) Polynomials

Zeros of a polynomial. Relationship between zeros and coefficients of quadratic polynomials, Standard form of quadratic equation and its solution, Discriminant and nature of roots.

(b) Linear Equations in Two Variables

Pair of linear equations in two variables and inconsistency, Graphical solution of pair of linear equations and its various possibilities.

(c) Arithmetic Progressions

Motivation for studying Arithmetic Progression, n^{th} term of an arithmetic progression.

UNIT 4: TRIGONOMETRY	12
(a) Trigonometric Ratios	
Trigonometric ratios of an acute angle of a right-angled triangle, Values of the trigonometric ratios of 0° , 30° , 45° , 60° and 90° .	
(b) Trigonometric Identities	
Applications of trigonometric identities.	
(c) Heights and Distances	
Angles of elevation and depression, Simple problems on height and distance (based on 30° , 45° , 60°).	
UNIT 5: COORDINATE GEOMETRY	6
1 Coordinate Geometry	
Cartesian coordinates in a plane, Distance between two points.	
UNIT 6: GEOMETRY	20
(a) Point and Concurrent Lines	
Locus , Locus of points equidistance from two given points.	
(b) Similar Triangles-Similarity , Similar triangles and the following theorems relating to them-	
(i) The two triangles are equiangular, then the triangles are similar(AAA similarity).	
(ii) If the corresponding sides of two triangles are proportional, then they are similar (SSS similarity).	
(iii) If in two triangles, one pair of corresponding sides are proportional and the included angles are equal, then the two triangles are similar (SAS similarity).	
(c) Circle	
Circle, Chord of a circle, Perpendicular from center to a chord - the perpendicular from the Centre of a circle to a chord bisect the chord. Tangent to the circle – the lengths of two tangents drawn from an external point to a circle are equal.	
(d) Constructions	
1. Division of a line segment in a given ratio (internally).	
2. Tangents to a circle from a point outside it.	
UNIT 7: MENSURATION	10
(a) Areas Related to Circle-Perimeter and area of a circle.	
(b) Surface Areas and Volumes- Surface area and volume of a right circular cylinder and a sphere.	
UNIT 8: STATISTICS AND PROBABILITY	10
(a) Statistics-Mean and median of ungrouped and grouped data.	

(b) Probability-Random experiments and its events, Mathematical definition of probability, Simple problems on finding the probability of an event.

UNIT 9: ROAD SAFETY EDUCATION

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Arithmetic series, Aim, Objective, Exercise, Compilation of data, Applications of trigonometry (aim, objective , exercise), Problems based on two variables (aim).

Prescribed Book :

Mathematics (Class 10) Board of Secondary Education Rajasthan, Ajmer

