# TOPPER LEARNING Kar

# Karnataka Class 9 Mathematics Syllabus 2016-17

# 1. SQUARE ROOT

- 1.1 Introduction
- 1.2 Division Method For Finding Square Root
- 1.3 Square Root Of A Decimal Number Which Is The Square Of Another Decimal Number
- 1.4 Moving Closer To The Square Root Of A Non-Perfect Square

#### 2. REAL NUMBERS

- 2.1 Introduction
- 2.2 Another Look At Rational Number
- 2.3 Irrational Numbers
- 2.4 Real Number System
- 2.5 Representation Of Irrational Number On Number Line

## 3. SURDS

- 3.1 Rational Exponents Of A Number
- 3.2 Surds And Their Properties
- 3.3 Reduction Of Surds Of Different Orders To The Same Order
- 3.4 Comparing Surds And Some Irrational Numbers

#### 4. SETS

- 4.1 Concept Of A Set
- 4.2 Representation Of Sets
- 4.3 Operation On Sets
- 4.4 Complement Of A Set

## 5. STATISTICS

- 5.1 Measures Of Dispersion
- 5.2 Mean Deviation
- 5.3 Graphical Representation
- 5.4 Random Experiment And The Concept Of Probability

#### 6. BANKING

- 6.1 Saving Bank Account
- 6.2 Types of savings bank account
- 6.3 Various things related to account
- 6.4 Calculation Of Interest On Saving Bank Account

#### COMPOUND INTEREST

- 7.1 Compound Interest
- 7.2 Difference Between Simple Interest And Compound Interest
- 7.3 Compound Interest Using Formula
- 7.4 Appreciation And Depreciation
- 7.5 Calculation Of Compound Interest Using Ready recknors

#### 8. HIRE PURCHASE AND INSTALLMENT BUYING

- 8.1 Hire Purchase And Installment Buying
- 8.2 Difference Between Hire Purchase And Installment
- 8.3 Terminologies associated with hire purchase and installment buying
- 8.4 Calculation Of Interest In Installment Buying

## 9. RATIO AND PROPORTION

- 9.1 Ratio
- 9.2 Proportion
- 9.3 Time And Work

# 10. MULTIPLICATION OF POLYNOMIALS

- 10.1 Product Of Polynomials
- 10.2 Identities
- 10.3 Square Of A Trinomial
- 10.4 Conditional Identity

# 11. FACTORISATION

11.1 Different Method Of Factorisation

- 11.2 Factorisation Of The Difference Of Two Squares
- 11.3 More On Factorisation Of Trinomials
- 11.4 Some Miscellaneous Factorisation
- 11.5 Some More Identities
- 11.6 Factorisation Of Some Cubic Expressions

#### 12. HCF AND LCM

- 12.1 Introduction To HCF And LCM
- 12.2 HCF Of Binomials
- 12.3 HCF Of Trinomials
- 12.4 HCF Of Polynomials
- 12.5 LCM of Polynomials
- 12.6 Relation Between HCF And LCM Of Two Polynomials

#### 13. DIVISION

- 13.1 Division Of Monomial By A Monomial
- 13.2 Division Of Polynomial By A Binomial
- 13.3 Division Of Polynomial By A Trinomial

# 14. SIMULTANEOUS LINEAR EQUATIONS

- 14.1 Introduction
- 14.2 Simultaneous Linear Equation
- 14.3 Methods Of Solving Simultaneous Linear Equation
- 14.4 Use Of Graphs In Simultaneous Linear Equation
- 14.5 Application Of Simultaneous Linear Equation

## 15. VARIATION

- 15.1 Direct Variation (Direct Proportion)
- 15.2 Inverse Variation (Inverse Proportion)
- 15.3 Joint Variation

## POLYGONS

16.1 Introduction To Polygons

# 16.2 Angle-Sum Property Of A Polygon

# 17. QUADRILATERALS

- 17.1 Quadrilateral And Types Of Quadrilaterals
- 17.2 Properties Of Quadrilateral
- 17.3 Construction Of Quadrilaterals

#### 18. THEOREMS AND PROBLEMS ON PARALLELOGRAMS

- 18.1 Properties Of A Parallelogram
- 18.2 Area Of A Parallelogram
- 18.3 Mid-Point Theorem
- 18.4 Converse Of Mid-Point Theorem
- 18.5 Construction Of Parallelograms & Special types of parallelograms

#### 19. CIRCLES

- 19.1 Introduction to Circles
- 19.2 Perpendicular From Centre to Chord
- 19.3 Angle Subtended by The Chord
- 19.4 Cyclic Quadrilaterals
- 19.5 Construction of Polygons inscribed in a Circle

# 20. CONCURRENCY IN TRIANGLE

- 20.1 Introduction
- 20.2 Concurrent lines
- 20.3 Construction Of Angle Bisectors Of A Triangle
- 20.4 Concurrency Of Medians
- 20.5 Circumcenter Of A Triangle
- 20.6 Concurrency Of Altitudes

# 21. Mensuration

- 21.1 Prisms And Pyramids
- 21.2 Surface Area Of A Prism
- 21.3 Surface Area Of A Pyramid
- 21.4 Volume Of A Prism
- 21.5 Volume Of A Pyramid