MATHEMATICS … Grade: 7 … Allocated Marks: 20 … Time Allowed: 45 minutes
The ability of the students regarding general concepts of Mathematics, practiced in the respective classes at every school, is evaluated through the Entry Test paper of Mathematics. The paper comprises of five sums carrying 4 marks each. The very first question of the paper is in objective form, however, the rest of 4 questions are picked up as calculation based sums.   • **Fill in the blanks** (1.0×4)   • **Sums** (4.0×4)

SYLLABUS of MATHEMATICS for ADMISSION to GRADE : 7

Natural and Whole numbers: Natural numbers & Whole numbers, Place value, Comparison & Ordering of numbers, Operations on numbers & their real life application ,Rounding off, order of operations (BODMAS) on numbers, Square and Cube of numbers

Integers: Integers and their representation on number line, Operations on integers , Comparison & Ordering of integers, properties of integers (Commutative, Associative, Distributive), additive identity and multiplicative identity of integers

Fractions and Decimals: Fractions, Reduction to its lowest form, Equivalent fractions, converting fractions into decimals & vice versa, Operations on fractions & decimals and its real-life application, Order of operations (BODMAS) on fractions and decimals, Rounding off decimals

Ratio and Percentage: Ratio & its simplification, Equivalent ratio, Relation between ratio & fraction, Concept of percentage, Conversion of decimal and fraction into percentage and vice versa, Application of percentage (profit, loss, discount), Finding percentage change (increase or decrease, increasing or decreasing a quantity in given percentage, real life situations involving Ratio and percentage

Factors and multiples: Odd numbers, Even numbers, Prime numbers and Composite numbers, Divisibility Rules, Common Multiples and Common factors, Prime Factorization by division & Factor tree method, Index notation, LCM & HCF, Real life situations involving LCM & HCF.

Algebra: Algebraic expressions & their Addition & subtraction, multiplication of algebraic expression with integers, Evaluation of algebraic expression and formula, Simplification of algebraic expression, Algebraic sentences, True, False & Open Sentences, Formation of linear equation in one variable & solution of linear equation in one variable, Real life situations of formation of linear equation.