COMMON UNDERSTANDING & PROFICIENCY ASSESSMENT (CUPA) –MATHEMATICS

BLUE PRINT (CLASS VIII)

Content/Theme	Weightage	K	U	A	HOTS
Geometry	30%	8	9	8	5
• classifies pairs of angles based on their properties as linear, supplementary, complementary, adjacent and vertically opposite and finds value of the one when the other is given.					
• verifies the properties of various pairs of angles formed when a transversal cuts two lines					
• finds unknown angle of a triangle when its two angles are known					
• explains congruency of triangles on the basis of the information given about them like (SSS, SAS, ASA, RHS)					
• using ruler and a pair of compasses constructs, a line parallel to a given line from a point outside it and triangles					
Number System	25%	7	8	6	4
• multiplies/divides two integers					
• interprets the division and multiplication of fractions. For example interprets $\frac{2}{3} \times \frac{4}{5}$ as $\frac{2}{3}$ of $\frac{4}{5}$.					
• Also, $\frac{1}{2} \div \frac{1}{4}$ is interpreted as how many $\frac{1}{4}$ make $\frac{1}{2}$?					
• uses algorithms to multiply and divide fractions/decimals.					
• solves problems related to daily life situations involving rational numbers					
• uses exponential form of numbers to simplify problems involving multiplication and division of large numbers.					
• solves problems related to conversion of percentage to fraction and decimal and vice versa					
Algebra	7%	1	3	2	1
• represents daily life situations in the form of a simple equation and solves it					
• adds/subtracts algebraic expressions					
Ratio and Proportion	7%	1	3	2	1
• distinguishes quantities that are in proportion. For example, tells that 15, 45, 40, 120 are in proportion as $\frac{15}{45}$ is the same as $\frac{40}{120}$.					
• caculates profit/loss percent and rate percent in simple interest					
Mensuration (Concept of perimeter and introduction to area)	6%	1	2	2	1
• finds out approximate area of closed shapes by using unit square grid/ graph sheet					
• calculates areas of the regions enclosed in a rectangle and a square					
Data handling	5%	1	1	2	1
• finds various representative values for simple data from her/his daily life contexts like mean, median and mode					
• recognises variability in real life situation such as, variations in the height of students in her class and uncertainty in happening of events like throwing a coin					
• interprets data using bar graph such as consumption of electricity is more in winters than summer, runs scored by a team in first 10 overs etc.					
Total for class VII	80%	19	26	22	13
Skills and competencies of previous classes	20%	4	6	6	4
Total	100	23	32	28	17