Syllabus of SAT subject test Mathematics Level-II

Unit -1 **ORDER OF OPERATIONS**

NUMBERS

FACTORS

MULTIPLES

FRACTIONS

DECIMALS

PERCENTS

EXPONENTS

ROOTS AND RADICALS

LOGARITHMS

KEY FORMULAS

REVIEW QUESTIONS

Unit -2 **ALGEBRA**

EQUATION SOLVING

WRITING EQUATIONS

MANIPULATING EQUATIONS

SYSTEMS OF EQUATIONS

COMMON WORD PROBLEMS

POLYNOMIALS

KEY FORMULAS

REVIEW QUESTIONS

Unit-3 **PLANE GEOMETRY**

LINES AND ANGLES

TRIANGLES

POLYGONS

CIRCLES

KEY FORMULAS

Unit-4 **SOLID GEOMETRY**

PRISMS

SOLIDS THAT AREN'T PRISMS

RELATING LENGTH, SURFACE AREA, AND VOLUME

INSCRIBED SOLIDS

SOLIDS PRODUCED BY ROTATING POLYGONS

KEY FORMULAS

REVIEW QUESTIONS

Unit -5 **COORDINATE GEOMETRY**

THE COORDINATE PLANE

LINES AND DISTANCE

GRAPHING LINEAR INEQUALITIES

OTHER IMPORTANT GRAPHS AND EQUATIONS

VECTORS

COORDINATE SPACE

POLAR COORDINATES

PARAMETRIC EQUATIONS

KEY FORMULAS

REVIEW QUESTIONS

Unit-6 **TRIGONOMETRY**

BASIC FUNCTIONS

COSECANT, SECANT, AND COTANGENT

SOLVING RIGHT TRIANGLES

TRIGONOMETRIC IDENTITIES

GRAPHING TRIGONOMETRIC FUNCTIONS

THE UNIT CIRCLE

GRAPHING IN THE ENTIRE COORDINATE PLANE

INVERSE TRIGONOMETRIC FUNCTIONS

SOLVING NON-RIGHT TRIANGLES

KEY TERMS

Unit-7 **FUNCTION**

CHARACTERISTICS OF A FUNCTION

EVALUATING FUNCTIONS

COMPOUND FUNCTIONS

INVERSE FUNCTIONS

DOMAIN AND RANGE

GRAPHING FUNCTIONS

IDENTIFYING THE GRAPHS OF POLYNOMIAL FUNCTIONS

REVIEW QUESTIONS

Unit-8 **STATISTICS**

STATISTICAL ANALYSIS

PROBABILITY

PERMUTATIONS AND COMBINATIONS

GROUP QUESTIONS

SETS

KEY FORMULAS

Unit-9 **MISCELLANEOUS**

LOGIC

SEQUENCES

LIMITS

IMAGINARY AND COMPLEX NUMBERS

KEY TERMS

REVIEW QUESTIONS

SAT PREP
SP
AHMEDABAD

Weightage of Units in details

Topic	Percent of Test	Usual No. of Questions
Algebra	**18%**	**9**
Arithmetic	2%	1
Equation solving	5%	2.5
Binomials, polynomials, quadratics	14%	7
Solid Geometry	**8%**	**4**
Solids (cubes, cylinders, cones, etc.)	4%	2
Inscribed solids, solids by rotation	1%	0.5
Coordinate Geometry	**12%**	**6**
Lines and distance	6%	3
Conic sections (parabolas, circles)	5%	2.5
Coordinate space	2%	1
Graphing	2%	1
Vectors	1%	0.5
Trigonometry	**20%**	**10**
Basic functions (sine, cosine, tangent)	12%	6
Trigonometric identities	4%	2
Inverse trigonometric functions	2%	1
Trigonometry in non-right triangles	1%	0.5
Graphing trigonometric functions	1%	0.5
Functions	**24%**	**12**
Basic, compound, inverse functions	8%	4
Graphing functions	6%	3
Domain and range of functions	8%	4
Statistics and Sets	**6%**	**3**
Mean, median, mode	2%	1
Probability	2%	1
Permutations and combinations	4%	2
Group questions, sets	1%	0.5
Miscellaneous	**12%**	**6**
Arithmetic and geometric series	4%	2
Logic	1%	0.5
Limits	1%	0.5
Imaginary numbers	1%	0.5