No.	Book	Content	Mark xx / 10	Teacher Sign.	Date
1. Sets					
1	NCERT	Activity 1: To find the number of subsets of a given set and verify that if a set has *n* number of elements, then the total number of subsets is 2^n.			
2	NCERT	Activity 2: To verify that for two sets A and B, n (A×B) = pq and the total number of relations from A to B is 2^{pq}, where n(A) = p and n(B) = q.			
3	NCERT	Activity 3: To represent set theoretic operations using Venn diagrams.			
4	NCERT	Activity 4: To verify distributive law for three given non-empty sets A, B and C, that is, A ∪ (B ∩ C) = (A ∪ B) ∩ (A ∪ C)			
2. Relations and Functions					
1	NCERT	Activity 1: To identify a relation and a function			
2	NCERT	Activity 2: To distinguish between a Relation and a Function.			
3. Trigonometric Functions					
1	NCERT	Activity 1: To verify the relation between the degree measure and the radian measure of an angle.			
2	NCERT	Activity 2: To find the values of sine and cosine functions in second, third and fourth quadrants using their given values in first quadrant.			
3	NCERT	Activity 3: To prepare a model to illustrate the values of sine function and cosine function for different angles which are multiples of $\frac{\pi}{2}$ and π.			
4	NCERT	Activity 4: To plot the graphs of sin x, sin 2x, 2sinx and sin $\frac{x}{2}$, using same coordinate axes			
4. Principle of Mathematical Induction					
5. Complex Numbers and Quadratic equations					
1	NCERT	Activity 1: To interpret geometrically the meaning of i			

		= $\sqrt{-1}$ and its integral powers.			
2	NCERT	Activity 2: To obtain a quadratic function with the help of linear functions graphically.			
6. Linear Inequalities					
1	NCERT	Activity 1: To verify that the graph of a given inequality, say 5x + 4y – 40 < 0, of the form ax + by + c < 0, a, b > 0, c < 0 represents only one of the two half planes.			
7. Permutations and Combinations					
1	NCERT	Activity 1: To find the number of ways in which three cards can be selected from given five cards.			
8. Binomial Theorem					
1	NCERT	Activity 1: To construct a Pascal's Triangle and to write binomial expansion for a given positive integral exponent.			
9. Sequences and Series					
1	NCERT	Activity 1: To obtain formula for the sum of squares of first n-natural numbers.			
2	NCERT	Activity 2: An alternative approach to obtain formula for the sum of squares of first n natural numbers.			
3	NCERT	Activity 3: To demonstrate that the Arithmetic mean of two different positive numbers is always greater than the Geometric mean.			
3	NCERT	Activity 3: To establish the formula for the sum of the cubes of the first n natural numbers.			
10. Straight Lines					
1	NCERT	Activity 1: To verify that the equation of a line passing through the point of intersection of two lines $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ is of the form $(a_1x + b_1y + c_1 + \lambda (a_2x + b_2y + c_2) = 0$.			
11. Conic Sections					
1	NCERT	Activity 1: To construct different types of conic sections.			
2	NCERT	Activity 2: To construct a parabola.			

3	NCERT	Activity 3: An alternative method of constructing a parabola.			
4	NCERT	Activity 4: To construct an ellipse using a rectangle.			
5	NCERT	Activity 5: To construct an ellipse with given major and minor axes.			
6	NCERT	Activity 6: To construct an ellipse when two fixed points are given.			
12. Introduction of Three dimensional Geometry					
1	NCERT	Activity 1: To explain the concept of octants by three mutually perpendicular planes in space.			
13. Limits and Derivatives					
1	NCERT	Activity 1: To find analytically $\lim_{x \to c} f(x) = \frac{x^2 - c^2}{x - c}$			
2	NCERT	Activity 2: Verification of the geometrical significance of derivative.			
14. Mathematical Reasoning					
1	NCERT	Activity 1: To obtain truth values of compound statements of the type $p \vee q$ by using switch connections in parallel.			
2	NCERT	Activity 2: To obtain truth values of compound statements of the type $p \wedge q$ by using switch connections in series.			
15. Statistics					
16. Probability					
1	NCERT	Activity 1: To write the sample space, when a die is rolled once, twice --------			
2	NCERT	Activity 2: To write the sample space, when a coin is tossed once, two times, three times, four times.			