Class12: Minimum Programme in Maths to achieve 70 marks in CBSE Board exam

Chapter	Sub Topics (Topics and Type of the Questions)	Related Questions in NCERT & Board exam – 2015 (Delhi)	Marks
1	1- To prove that given relation is an equivalence relation. 2-One-one, onto and invertible function. To find fog/gof. 3-Binary Operation: to prove associativity & Commutativity, Identity & inverse.	1) p6-Q8. [CBSE 2015, Delhi-Q 20] 2) p11-Q9, 10; p29-Q4, p18-Q3, 8, 9, 12. 3) p25-Q6, 9, 10, 11	6
2	To prove/solve based on following formulae: $(\tan^{-1} X + \tan^{-1} Y)$, $(\tan^{-1} X - \tan^{-1} Y)$, $(2 \tan^{-1} X)$	P45-eg4; p47-eg7, Q3, 4, 5, 6; P48-Q15. P51-eg13, Q8. [CBSE 2015 (Delhi)- Q14]	4
3 & 4	1- A question based on Symmetric & skew symmetric Matrics. 2- Find the inverse of a matrix using elementary transformation Method and Adjoint method. 3- To Prove, using properties of Determinants. 4- To solve system of linear equations, using matrix method.	1-(p.89 Q.10). [CBSE 2015 (Delhi)- Q4] 2- (P. 97 Q1-17) (p.132, Q5-11). [CBSE 2015 (Delhi)- Q7] 3-(p.119 Q1-14). [CBSE 2015 (Delhi)- Q8] 4-(p.136, Q7-16)	1 4 4 4
5	1- One question of Continuity. 2- To Find the value of K if a function is given continuous. 3- One Q. of the type from the following questions-	1-(p.159 Q6-25) 2- p169-Q26 to30. 3- P176-eg 33, p-180 eg 35,36, p.181-Q11, p.183-eg41, p 190-eg48, p191-Q13 to 17. [CBSE 2015, Delhi-Q 15 & 16]	4 4
6	1- One question of the topic Rate of change. 2- Questions based on Increasing/decreasing function	1- Exercise 6.1(All the problems). [CBSE 2015, Delhi-Q 17] 2- P203-eg12&13, p205-Q6,9, 15-19	4
7	1-One Question of definite integration by limit of sum. 2. Write some steps in other two questions of integration.	1] Ex 7.8-Q1-6. [CBSE 2015 (Delhi)- Q21] 2] Chapter 7-Examples 2, 3, 6, 9, 10, 12, 16, 22, 32, 34, 35, 36, 44. [CBSE 2015 (Delhi)- Q9, 10, 18]	4 4
8	[AOI]One sure Question of 6 marks	P362-eg2, p368-eg6-10, [CBSE 2015 (Delhi)- Q21]	6
9	One Question of 1 mark- Degree, Integrating factor of a D. Eq.,	Exercise 9.1- [CBSE 2015 (Delhi)- Q5 & 6]	1

10	1- Two questions of 1 mark each. [Unit vector, Projection of a vector, area of triangle, Angle b/w two vectors, scalar & cross product, conditions of Perpendicular & parallel vectors.	P440-Q7, 9, 10, 11, 12, 13, p445- eg 14-21, p454-Q 4, 9, 10. P-458 Q5, 6, 7, 11, 14, 15. [CBSE 2015 (Delhi)- Q1, 12]	1 1 4
11	1- To find the point of interception of two lines. 2- To find the angle between the pair of lines. 3- To find the shortest distance between two lines. 4- To find the value of λ if two lines are perpendicular 5- 5- To show that the lines are coplanar, Angle between two planes.	1]Ex 11.2-Q7, 2]Ex 11.2-Q10, 11 3] Ex 11.2-Q14 to 17 4] Ex 11.2- Q12,13 5] p488-eg 21, p489-eg22,23. [CBSE 2015 (Delhi)- Q2]	4
12	1- Manufacturing problems. 2- Diet problems. 3- Transportation problems.	Chapter-12. eg 6 to 11. [CBSE 2015, Delhi-Q 26]	6
13	1- One question based on Baye's Theorem or theorem of Total probability.	Questions of Ex 13.3 and examples 15-21	4
	Total		**70**