SYLLABUS FOR PERIODIC WRITTEN TEST 2

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| TOPICS | WEITAGE |
| QUADRATIC EQUATIONS :  Standard form of a quadratic equation ax2 + bx + c = 0, (a ≠ 0). Solutions of quadratic  equations (only real roots) by factorization, and by using quadratic formula. Relationship  between discriminant and nature of roots.  Situational problems based on quadratic equations related to day to day activities to be  incorporated. | 10 |
| ARITHMETIC PROGRESSIONS :  Motivation for studying Arithmetic Progression Derivation of the nth term and sum of the  first n terms of A.P. and their application in solving daily life problems. | 11 |
| CIRCLES :  Tangent to a circle at, point of contact  1. (Prove) The tangent at any point of a circle is perpendicular to the radius through the  point of contact.  2. (Prove) The lengths of tangents drawn from an external point to a circle are equal.  . | 11 |
| CONSTRUCTIONS:  1. Division of a line segment in a given ratio (internally).  2. Tangents to a circle from a point outside it.  3. Construction of a triangle similar to a given triangle | 7 |
| INTRODUCTION TO TRIGONOMETRY :  Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their  existence (well defined); motivate the ratios whichever are defined at 0o and 90o. Values  of the trigonometric ratios of 300, 450 and 600. Relationships between the ratios. | 11 |