**GREENSPRINGS SCHOOL, LAGOS**

**FIRST TERM**

**ADD. MATHEMATICS SCHEME OF WORK 2016/2017**

**YEAR 11**

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| WEEK | TOPIC | CONTENT |
| 1 – 2  | SIMULTANEOUS EQUATIONS.QUADRATIC FUNCTIONS | -Simultaneous one linear, one quadratic equations.- quadratic function to the form a(x+p)2+q-maximum and minimum value or pointgraph sketching, range for a given domain- (i)two real roots (ii)no real roots-imaginary roots (iii)two equal roots-conditions for a given line to (i)intersect a given curve (ii)be a tangent to a given curve, (iii) not intersect a given curve |
| 3 | QUADRATIC INEQUALITY | Quadratic inequalities  |
| 4 – 5  | FACTORS OF POLYNOMIALS | -Addition, subtraction, multiplication and division of polynomials- the remainder and factor theoremscubic polynomialsfunctions |
| 6 – 8  | COORDINATE GEOMETRY | -Distance between two points-mid point of a line segment-division of a line in a given ratio-gradient, condition for parallelism and perpendicularity |
| 9 – 10  | FUNCTIONS | -Definition, domain, co-domain, range-inverse functions, composite functions -one-one and onto functions-relationship between a function and its inverse-sketch graph of function-modulus equations |
| 11 | CIRCULAR MEASURE | -Arc length, area of sector in radian measure. Perimeter of a shaded segment of a sector.  |
| 12 | MATRICES | -Information Display. Order Of A Matrix. Addition, Subtraction Of Matrices. Matrix Multiplication. Identity Matrix. Zero Matrix. Inverse Of A 2x2 Matrix. The Determinant Of A 2x2 Matrix. Application To Simultaneous Equations. |