NATIONAL EXAMINATIONS COUNCIL (NECO)

BASIC EDUCATION CERTIFICATE EXAMINATION (BECE)

SYLLABUS

FOR CANDIDATES IN UPPER BASIC (JSS1-3) IN NIGERIA UNDER THE UNIVERSAL BASIC EDUCATION (UBE) PROGRAMME.

BECE

SECOND EDITION

MATHEMATICS

JSS THREE

FIRST TERM

1. **Whole numbers**
   a. Binary number system
   b. Using computer to do simple mathematical calculations
   c. Translation of word problem into numerical expression
   d. Expressions involving brackets and fractions
   e. Direct and inverse proportion
   f. Application of direct and inverse proportions
   g. Compound interest
2. **Rotational and non-Rotational numbers**
   a. Rotational and non- Rotational numbers
3. **Addition of numbers in base 2 numerals**
   a. Addition of two or three 3-digit binary numbers
4. **Subtraction of number in base 2 numerals**
   a. Subtraction of two 3-digit numbers
5. **Multiplication of numbers in base 2 numeral**
   a. Multiplication of two 2-digit binary numbers
6. **Divisions of numbers in base 2 numbers**
   a. Division of two 3-digit binary numbers
7. **Factorization**
   a. Factorization of expressions of the form

   $$ax + ay$$
   $$3m + pq + 3p + mp$$
   $$a^2 - b^2$$
   $$a^2 - 2ab + b^2$$

   b. Word problem involving factorization.
8. **Simple equation involving fractions**
   a. Simple equation involving fraction
   b. Word problem leading to simple equation involving fraction

SECOND TERM

1. **Simultaneous linear equation**

     a. Compilation of tables of values

     b. Graphical solutions of simultaneous linear equation in two variables

     c. Solution of simultaneous linear equations using elimination method

     d. Solution of simultaneous linear equations using substitution method

2. **Similar shapes**

    a. Similar shapes

    b. Enlargements and scale factor

    c. Lengths, areas and volumes of similar figures

3. **Trigonometry**

    a. The sine, cosine and tangent of an acute angle

    b. Application trigonometric ratios.

4. **Area of plane figures**

    a. Area of triangles

    b. Area of parallelogram

    c. Area of trapezium

    d. Area of circles

    e. Word problems involving area

5. **Construction**

    a. Construction of angle 45°

    b. Construction of angle 30°

    c. Copying given angles

    d. Construction of simple plane shapes

6. **Measure of Central tendency**

    a. Revision on previous work on mean, median and mode

    b. Median

    c. Mode

    d. Mean

    e. Range

    f. Application of measures of central tendency to analyze any given information

7. **Data Presentation**

    a. Pie charts

THIRD TERM

Revisions

a.