**GATITU MIXED SECONDARY SCHOOL**

**MATHEMATICS FORM 3 END TERM EXAM TERM 1 2015**

**ATTEMPT ALL THE QUESTIONS**

1. Evaluate using a calculator. 2mks

Log 0.056

Log 0.0134

1. Simplify 3mks

(2x + 3y)2 - (2x – 3y)2

1. Solve 2mks

(4√3 - √2) (2√5+ √3)

1. Solve for Y in 4mks

Log (2y -11) - log 2 = log 3 – log y

1. Given that tan 75 = 2 +√3, find without using tables tan 15 in the form a+ b√c where a, b, and c are integers. Hence state the numerical values of a, b, and c. 5mks
2. Use completing the square method to solve, 4mks

3x2+ 5x = -2

1. Solve for M and N 4mks

Log 4 (m +4n) = 2

Log3 (6m + 4 n) =2

1. Given that u = 0.6983, V = 0.09853 and F= 6.0843,
2. By correcting each number to 2 s.f, work out u - v round off the answer to 3

decimal places f

1. By rounding off each number to 3 decimal places work out u + 2 v + 2 f. 3mks
2. One of the roots of the equation 4x2 + bx+ 75 = 0 is three times the other. Find the two possible values of b and hence rewrite the equation. 5mks
3. The length of a road was measured and found to be 245m.
4. State the limits within which this length lies. 1mk
5. State the absolute error in the measurement. 1mk
6. Calculate the
7. Relative error 2mks
8. Percentage error 2mks