**The City School**

North Nazimabad Boys campus

Subject: Add Math

Date: 07-10-2016

Class: 9

Topic: Logarithms

Teacher: Ms Sheema

Marks (30)

Q1: Given that y = 4($3)^{y-3}$, find the value of y when y = 0.5.

Q2: Find the value of x which satisfies the equations 1) $e^{2x}$- $e^{x}$- 5 = 0 and 2) 2$e^{2x}$ +3 $e^{x}$ +1= 0 Q3: Solve the equations: $6^{x+1}$= $4^{x}$ and $7^{a-1} $= $49^{a}$

Q4: Solve the simultaneous equations 16 × $2^{y}$ = $2^{2x-1}$ , $3^{y}\sqrt{3^{x}}$ = 27

Q5: Evaluate by using Change of base law: $ln\_{a}^{}$ 2 and $ln\_{6}$ 7

Q6: Use laws of logarithm; evaluate 1) $log\_{7}$ $y^{2}$ + $log\_{7}$ $y^{6}$ 2) $\frac{log\_{2 }8}{log\_{2 }4}$

Q7: Solve the following equation:

1. $4^{x+1}$ = 16 b) ln( $e^{3x}$ - 5) = 3s