GATITU GIRLS SECONDARY SCHOOL P.O BOX 327- 01030 GATUNDU.

MATHEMATICS FORM 4 TUNE-UP EXAM TERM 3 2015.

NAME---ADM------------

ANSWER all the questions on the spaces provided.

1 Without using mathematical tables or calculators evaluate, leaving your answer in prime factor form.

$$\frac{(2^2 \times 3 \times 5)^3}{540 \times 50}$$

(3mks)

2 Given point p(-4,2) and Q(6,-2) obtain the equation of the perpendicular bisector and hence the co-ordinate of its y intercept. (4mks)

3 Solve the equation.

(a) $8^x + 2^{3x} + 3 = 35$ (2mks)

(b) $3(3^{2x}) - 28(3^x) + 9 = 0$ (3mks)

4 Find the integral values of x given that;

$6 - 4x \leq 6x - 12 \leq 4x - 2$ (2mks)

5 Solve for x in the equation for $0^0 \leq x \leq 360^0$ (3mks)

$\text{Sin} x = 0.8071$

6 Find the value of x in the equation $6^x = 15$ (3mks)

7 Given the equation of a quadratic curve $y = x^2 + 5x - 3$;

(a) Complete the table below for the function $y = x^2 + 5X - 3$ for $-6 \leq X \leq 1$ (3mks)

X	-6	-5	-4	-3	-2	-1	0	1
Y		-3	-7					

Draw the graph of $y = x^2 + 5x - 3$ for $-6 \leq x \leq 1$ (3mks)

(b) Use your graph to solve the equation $X^2 + 5x - 1 = 0$ (2mks)

© $x^2 + 4x = 3$ (2mks)

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