GATITU DAY MIXED SECONDARY SCHOOL

 FORM 2 C.A.T 1 TERM 2 2012

MATHEMATICS

TIME: 1 HOUR

1. Simplify ½ of 6 (3/2 \* 6/3 - 4/8) (2mks)

2. Solve for x in

 a. (72 ) 2x = (72 ) 3 (2mks)

 b.  92x / 32x =2187 (2mks)

3. Write in index form

 Log 108 =x (2mks)

4. Write in logarithm form

 210 =1024 (2mks)

5. Given that x – intercept =5 and y intercept = -1 determine the equation of the line (3mks)

6. Given that sin A =4/5, cos 5/13 and A and B are acute angles, without using tables calculate sin B cos A + sin A tan B (3mks)

7. In the figure below TP is parallel to RS. Given that TP =32 CM RS =8 CM TO =28CM RO =12CM.

 T R

 28 12

 32

 O 8

 P S

Find PO and OS (2MKS)

8.30 men working for 8hrs a day can complete picking tea in 10 days. Determine how long it will take 20 men working 12 hrs a day to complete the same task. (2mks)

9. The volumes of two similar cans are 96cm3 and 1500cm3.F ind the ratio of

 a. their heights (2mks )

 b. the area of their curved surfaces (2mks )

10.The figure below is a right –angled at C. Find BC when AC =10 and AB =26CM (2MKS ) A

 C B

11.A ladder 10m long leans against a wall as shown. If its foot is 3m from the wall, calculate (4mks)

 a. The vertical distance from the top of the ladder to the ground.

 b. The angle the ladder makes with the ground.