ST CLAIRE GIRL’S HIGH SCHOOL

MATHEMATICS FORM 3 MIDTERM EXAMS.

NAME:…………………………………………………..-------------------------------+1ADM:………………………….CLASS:………

1.Form the quadratic equations whose roots are(6mks)

a)5 and -$\frac{1}{3}$

b)-2 and -3

c)7 and -11

2.Find the minimum possible perimeter of a regular hexagon whose side measures 12.6cm to one decimal place.(3mks)

3.Round off the following to four significant figures(8mks)

i)21.736

ii)0.0070923

iii)430947

iv)$\frac{5}{7}$

4.Use the figure below to determine the sizes of the interior angles.AD=12cm.(6mks)

5.Truncate the following to 3 decimal places.(4mks)

i)$\frac{2}{3}$

ii)523.9746

iii)17.3489

iv)0.0006374

6.If angle Ø lies between 0ᴼ and 180ᴼ and sinØ=0.5.Find two possible value of Ø(4mks)

7.The difference between two numbers is 5,if their product is -6.Find the numbers.(3mks)

8.Evaluate sin 60ᴼcos30ᴼ ,leaving your answer in surd form.(3mks)

 Tan30ᴼsin 45ᴼ

9.Find y if log 2y ÷log2 92=2 (3mks)

10.Factorise (4mks)

i)8x2 + 6x-9

ii)16-4x2

11.The angles of a triangle are in the ratio 3:4:2.If the shortest side is 5cm.Calculate the length of the longest side.(3mks)

12.Rationalize and simplify

i) 3-$\sqrt{2}$ (3mks)

 3+$\sqrt{2}$

ii) 2 (3mks)

 4-$\sqrt{5}$

13)Solve the following triangles

a) (3mks)

b) (3mks)

14.Find the missing term to make the expression a perfect square

16x2+………+36 (3mks)

15.Solve the following simultaneous equation

Logx y=2 and xy=8 (4mks)

16.A man deposited some money in a savings bank for 2$\frac{3}{4}$ years and found that the money had earned shs 8,600 simple interest.If the rate was 8.5$\%$ p.a,how much money did he have in his account at the end of the period? (4mks).