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 -

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)

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)

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- (3mks)

3+

ii) 2 (3mks)

4-

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 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).