**SS 3 ENGLISH STUDIES HOLIDAY ASSIGNMENT**

**Answer ALL questions**

You have received a letter from an uncle of yours who wanted to know if a political aspirant contesting for the post of a senator in your constituency is still credible to be re-elected into the same office the second time. Write a letter to him giving him at least three reasons why the candidate does not deserve re-electing him into the same office. The answer should be written in a new exercise book in not less than 450 words.

**SS 3 MATHEMETICS HOLIDAY ASSIGNMENT**

**Answer ALL questions**

[1a] Calculate the compound interest on 25000 for 3 years at 12% per annum

b. The 5th term of a GP is . If the first term is 2; find the

i. common ratio

ii. sum of the first five terms of the GP

[2a] Evaluate the determinant

b. find the equation of a straight line which passes through the points and

[3] Two points C and P lie on a straight line such that C is due north of P. Another point T is 6k from the line CP on a bearing of 1500 from C and 400 from P. What is the length of the line CP; correct to 3 significant figures.

[4a] If the number are in the ratio , find

b. find the quadratic equation whose roots are and

[5] A flower vase 8cm long is in the shape of h the frustum of a square based pyramid of sides 6cm at the bottom and 10 cm at the top. What is the volume of water that will fill the vase when it is empty.

[6a] A motorist travels for 60km at and forat , the total time for the journey being 5 hours . If the speed had been interchanged, the total time would have been 40 minutes less. Find the values of x and y.

b. In the diagram, WY and WZ are straight lines, O is the centre of circle WXM and . Calculate

W

X

M

Y

Z

o

c. Make m the subject of the relation

[7a] Using completing the square method, solve, correct to 2 decimal places

b.

Q

S

T

P

o

R

In the diagram above, PQRST is a circle with centre O. if PS is a diameter, RS//QT, /QR/=/RS/ and, find i. ii. iii.

c. by how much is the sum of and less than 7

Question 8

1. From an aeroplane in the air and at a horizontal distance of 1050cm, the angles of depression of the top and base of a control tower at an instance are and respectively. Calculate. Correct to the nearest metre the;(i) height of the control tower (ii). shortest distance between the aero plane and the base of the control tower

b. solve the inequality , show the solution on a number line 3 marks.

Question 9

The weight (in kg) of 50 contestants at a competition is as follows

65 66 67 66 64 66 65 63 65 68 64 66 64 67 65 64 66 65 67 65 67 66 64 65 64 66 66 65 64 65 66 65 64 65 63 63 67 65 63 64 66 64 68 65 63 65 64 67 66 64

a. construct a frequency table for the discrete data

b. calculate, correct to 2 decimal places, the

1. Mean using an assumed mean of 50
2. Standard deviation
3. Mean deviation of the data

Question 10

Using a ruler and a set of compasses only;

1. Construct
2. XYZ such that and XY=100mm
3. Locus of points equidistant from Y and Z
4. Locus of points parallel to AY through Z
5. Measure

Question 11

1. If find p:q

P

Q

R

U

2m

2m

4m

4m