**END OF TERM II EXAMS – 2012**

**S.1 MATHEMATICS**

**TIME: 2 hours 30mins**

**INSTRUCTIONS*;***

* **Attempt all questions in both sections A and B**
* **All necessary calculations must be shown.**

***SECTION A***

1. Given that x= - , y= -3 and z=4. Evaluate (zy)2

x

1. Given that

A = {all factors of 36}

B = {multiples of 2 between 0 and 20}

(i) State the members of each set.

(ii) Find n (AnB)

1. Arrange the following in order of size

11102three, 1403five, 87nine, 234six

1. Find the LCM and HCF of 36, 54 and 96
2. Find the next two terms of the sequence

1, 3, 6, 10, 15, 21, ……, ……

1, 8, 27, 64,……,……

1. If 5 is added to a certain number, the result is the same as if 45 subtracted from three times the number. Find the number.
2. Express 0.135135….. as a fraction.
3. Arrange 1/3, 2/5, 4/15 in ascending order.
4. Use a number line to complete the following.
5. -4 + 3 =
6. -2 x 3 =
7. The figure represents three lines intersecting at a point. Find p and q

***SECTION B***

1. In a class of 65 students, there are 25 students who like English (E), 35 students like maths (M). The number of students who like both English and mathematics is x. the number of students who like none of the two subjects is 2x.

(a)Draw a Venn diagram to represent the information above.

(b)Find the number of students who

* + 1. Like both English and mathematics.
    2. Like none of the subjects.
    3. Like only English

1. Using a ruler and a pair of compasses only construct a triangle ABC in which angle ABC is 300 , angle BAC is 750 AB = 6.8cm.
2. Measure the angle BAC.
3. Circum scribe the triangle ABC and measure its radius.
4. (a) Write 2014eight in base ten.

(b) Convert 131four into base nine.

(c) Subtract 355six from 500six.

(d) Solve for n, given that 204n= 76ten.

1. On his death, a man left Shs 600,000 for his three sons: Bob, Boy and Baby. Bob was to get 2/3 of the money, Boy was to get 3/4 of the remainder and Baby could get the rest. Find the amount of money each of them got.
2. a) Plot the line y= 3x + 2 for x ranging from -3 to +3.

b) on the same Cartesian plot the line y=3 and write the point of intersection of the two lines.

*Wish u de best………..*