**MBOGO MIXED SECONDARY SCHOOL**

**MID TERM II EXAMINATIONS**

**S.1 MATHEMATICS.**

**Duration: 2hrs**

***Instructions*:**

**Attempt all questions.**

* All the necessary working should be shown.
* Neat work is a must.

**SECTION A**

1. Simplify 2 ÷ 4 – 2

4

1. Work out.
2. (- 2)3 x 32

4

b) (-3)2 x -2

1. Find the L.C.M and H.C.F of the numbers 18, 42, 96.
2. Convert 2televen to base two.
3. Change 0.272727……… to a fraction.
4. Work out
5. 0.00891 ÷ 0.003.
6. 210 x 0.00070.
7. Solve the equation 3x + 4 = 16 – x .
8. Find the next number in the sequence.
9. +4, +2, 0,-2, \_, \_, \_, \_.
10. 1, 8, 27, 64, \_, \_.
11. Prime factorise the following.
12. 96
13. 180
14. Given that A is a set of all prime numbers between 0 and 30 and B is a set of all odd numbers from 1 up to 19. Find
15. AnB.
16. AUB.

**SECTION B**

1. (a) After covering 2/3 of my journey, am left with 24km. How long is the journey?

(b) Arrange the following in ascending order.

1/3, 2/5, 3/10, 4/15, 5/20.

1. (a) (i) Add 411five and 321six and give your answer in base ten.

(ii) Change the answer in a (i) above to base two.

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

. .

1. (a) Convert 0.736 as a fraction.

(b) Express the following as percentages

i) 0.04

ii)

1. Express 18% as a decimal.
2. In science department of Mbogo mixed secondary school which has 17 teachers, 6 teach chemistry, 14 teach mathematics and 1 teaches neither of the two subjects. Represent the information on a Venn diagram. Find the number of teachers teaching:
3. Both subjects.
4. Chemistry only.
5. Physics only.

**END**