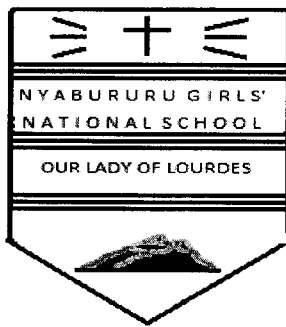


NAME.....CLS.....C.NO.....ADM.....



DATE DONE.....

INVIGILATOR.....

DATE RETURNED.....

DATE REVISED.....

**MATHEMATICS MAKE UP
FORM I TERM 2 2016
TIME 2 ½ HOURS.**

INSTRUCTIONS

- ❖ Write your name, class, class number and admission number in the spaces provided at the top of this page.
- ❖ Answer all the questions in the spaces provided
- ❖ Show your workings in the spaces provided below each question.
- ❖ Mathematical tables may be used but NOT scientific calculator
- ❖ Marks may be awarded for correct working even if the answer is wrong.

FOR EXAMINER'S USE ONLY

SECTION I

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL

SECTION II

17	18	19	20	21	TOTAL

TRAND TOTAL	
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SECTION A

1. Evaluate $\frac{-6 + (-5) + 8 \times (-2)}{-4 + (-2)}$ (3 Mks)

2. Mweni, Koome and Swale shared out money. Mweni got $\frac{3}{5}$ of the money, Koome got $\frac{1}{6}$ of the remainder and Swale got Sh. 36,500 which was the actual amount of money that remained after Mweni and Koome had received their shares. How much money did each receive? (3 Mks)

3. Express as a fraction: $0.\overline{468}$ (3 Mks)

4. The temperature in Moscow at one time was -31°C . If it dropped to -45° , what was the drop in temperature? (3 Mks)

5. Find by use of tables

(i) $\sqrt{0.00431}$

(2 Mks)

(ii) $(83.54)^2$

(2 Mks)

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6. Find the angle subtended by the arc at the centre of a circle given that the circumference is 270 cm and the arc length is 77 cm. (3 Mks)

7. Simplify $\frac{x-1}{4} - \frac{x+2}{5}$ (3 Mks)

8. Otieno is now 52 years old. In three years time, he will be five times as old as Chemtai. How old is Chemtai? (3 Mks)

9. Find the value of x in $\frac{x-1}{2} - \frac{x-3}{4} = \frac{1}{2}$

(3 Mks)

10. (a) Find three consecutive integers whose sum is 57.

(2 Mks)

(b) If $x = 2$, $y = -3$, $w = 0$ and $z = 5$, evaluate $\frac{w(x+y-z)}{y}$

(2 Mks)

11. Simplify $\frac{ab + ac - bd - cd}{a - d}$

(3 Mks)

NAME.....CLS.....C.NO.....ADM.....

12. Given that the diagonals of a rhombus are 14 cm and 20 cm respectively, find the area of the rhombus. (3 Mks)

13. A metallic pipe is 20 m long. The inner radius is 5 cm and the outer radius is 6 cm. Calculate the volume of the material used to make the pipe. (3 Mks)

14. Calculate the volume of 2 kg of cork if the density of the cork is 0.25 g/cm^3 . (3 Mks)

NAME.....CLS.....C.NO.....ADM.....

15. A train left Nairobi for Nakuru at 1645 h. it arrived in Nakuru at 8.30 P.M. How much time did it take on the journey? (3 Mks)

16. Calculate the surface area of a closed cylinder whose radius is 14 cm and height 40 cm. (3 Mks)

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NAME.....CLS.....C.NO.....ADM.....

SECTION B

17. (a) Find the ratio of $m:n:p$ If $m:n = 2:5$ and $n:p = 4:1$ (3 Mks)

(b) If the ratio of the scale of a map is $1:50,000$ and the distance between two points on the map is 8 cm, find the actual distance between the two points in Km. (3 Mks)

(c) A group of 32 girls finished a piece of job in 10 days. How many extra girls are needed to complete the same job in 8 days? (4 Mks)

NAME.....CLS.....C.NO.....ADM.....

18. (i) Find the percentage increase in area if the sides of ^athe square are increased by 20%.
(4 Mks)

(ii) When the price of a T.V. is decreased by 10%, John paid /sh. 12500 for it. What was the original price of the TV?
(3 Mks)

(iii) Change 112 km/h into metres per second.
(3 Mks)

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19. (i) Solve the simultaneous equations

$$3x - 2y = 14$$

$$x + 2y = 10$$

(4 Mks)

(ii) A tank has a base area of 1.2 m^2 . Water flows from a tap into the tank at the rate of 60 litres per minute. Find the height of the water in the tank after 6 hours.

(4 Mks)

(iii) Factorize $am + an + xm + xn$

(2 Mks)

20. (i) Using a compass and ruler only, draw triangle ABC in which $AB = 6$ cm, angle $ABC = 135^\circ$ and $BC = 5$ cm. (3 Mks)

(ii) Drop a perpendicular from C to cut AB extended at N. Measure CN. (4 Mks)

(iii) Find the area of ABC. (3 Mks)

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21. (a) Fifteen tractors each working 8 hours a day, take eight days to plough a piece of land. How long will it take 24 tractors, each working 10 hours a day to plough the same piece of land. (3 Mks)

- (b) Simplify the expression (3 Mks)

$$\frac{3x-6}{4} - \frac{1-r}{3}$$

- (c) Find the perimeter of the sector below if its radius is 7 cm. (4 Mks)