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0721745374/0721707626
Nairobi

END OF YEAR EXAMS 2015

Name: ……Adm no ……..….....

Class: ……...….

FORM 1
MATHEMATICS
TIME: 2 ½ HOURS

INSTRUCTIONS TO THE STUDENT:

- *Write your **name**, **admission no.** , **and class** in the spaces provided*
- *Answers and working **must** be written on the question paper in the spaces provided below each question.*
- *Show all steps in your calculations below each question.*
- *Marks may be given for correct working even if the answer is wrong.*

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1. Evaluate.

$$\frac{-2\,(5+3)\,-9 \div 3 + 5}{-3\,(-5) + -2\,(4)}$$ (3 marks)

2. A group of 60 people consisting of adults and children hired a bus for sh. 18,600 in order to take a trip. Each adult paid sh. 400 while each child paid sh. 250. Find the number of adults and the number of children. (3 marks)

3. A bus travels at $75^1/_3$ km/h. What distance will it cover in $2^1/_5$ hrs. (2mks)

4. Y represents a number which when divided by 10, 15 or 18 the remainder is always 7.
Find y. (3mks)

5. John miscopied 75 as 57. He the multiplied 57 by a certain number and got 456. Find the number and the correct product. (4mks)

6. Simplify:

$3\frac{1}{3} \div -2$ (2mks)

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7. Evaluate: $\frac{0.236 \times 1.0341}{3.226 \times 0.0021}$

(4mks)

8. One day a girl spent $\frac{1}{4}$ of the time reading and and $\frac{1}{8}$ of the day eating .She spent $\frac{1}{2}$ of the remaining time sleeping. What fraction of the day did she spend sleeping? (4mks)

9. The smaller of two consecutive integers is P. Find the sum of 3 times the smaller integers and five times the greater.(3mks)

10. Five years ago, the population of a place was 20,000. If it has decreased by 11% since then, what is it now?(3mks)

11. A piece of thread is equal to an arc of circle. The arc is subtended by an angle of 150^0 in a circle of radius 10.5 cm. (3mks)

12. A square has an area of $81m^2$. Calculate its perimeter. (3mks)

13. Find the volume of a cube whose surface area is 54 m^2 . (4mks)

14. The density of liquid X is 0.9g/cm^3 .Calculate the volume in m^3 of 2800kg of the liquid. (4mks)

15. A students' counseling session took $2\frac{1}{4}$ hours and ended at 10.45 a.m. At what time did the session start? (4mks)

16. A man is 30 years old while his son is 4. In how many years time will the son be half the age of the father. (4mks)

17. The cost of 3 pineapples and 2 mangoes is Sh 72. If 4 pineapples and a mango cost Sh 76, find the value of two mangos and a pineapple. (4mks)

18. Jane bought a blanket at 20% discount. If the marked price was Sh 960, how much did she pay? (3mks)

19. A regular polygon with 3x sides has interior angle 40^0 greater than that of one with x sides. What is x? (4mks)

20. If x=-2 find the value of x^2 -5 x^2-4x+3 (2mks)

21. Find the angle of depression of a point 5m away from the foot of a flag mast which is 6m high (4mks)

22. To reach Eldoret, Cheptoo has to walk 5km from home to the bus station then she will take a bus for a third of her journey and then a train for the remaining quarter. Calculate the distance from his home to Eldoret. (3mks)

23. Alex, Ken and Jeremy start to run around a circular field at 9:30 A.m. If one lap takes Alex 30 minutes, Ken 33 minutes and Jeremy 42 minutes when will they all come to the starting point again. (4mks).

24. Factorize the following expression:

3px-py+3qx-qy (3mks)

25. A bus travels at 60km/hr for 3hrs and rest for 1/3h. It finally covers a distance a distance of 180km in 2hrs. Find the average speed for the whole journey. (4mks)

25. Mary, john and Hassan share the profit of their business in the ratios 3:7:9 respectively. If Mary receives Sh 60,000, how much profit did the business yield. (4mks)

26. The length of an arc of a circle is a quarter of the circumference of the circle. Find the angle subtended by this arc at the center if the radius of the circle is 7cm.(4marks)

27. Ouma and Otieno working together can do a piece of work in 6 days. While working alone Ouma takes 5 days longer than Otieno. How many days does it take Otieno to do the work alone. (4mks)

28. Three bells ring at intervals of 9 minutes, 15 minutes and 21 minutes. The bells will next ring together at 11:00pm. Find the time the bells had last rang together. (4mks)

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END TERM EXAMS 2015
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MARKING SCHEME FORM 1

1	$\frac{-2(5+3)-9\div 3+5}{-3(-5)+-2(4)}$ $\frac{-2X8-9\div 3+5}{15+-8}$ $= \frac{-16-3+5}{7}$ $\frac{-14}{7}$ $= -2$	
2	Let: A be the no. of adults and C the no. of children A+C= 60 40A + 250C = 18,600 8A + 5C = 372 5A + 5C = 300 3A = 72 A = $\frac{72}{3}$ =24 A + C =60 24 + C =60 C= 60-24=36 24 Adults and 36 Children	
3	D = SXT D =$\frac{226 \ X \ 5}{3}$	