ADM: $\qquad$ NAME: $\qquad$ CLASS. $\qquad$


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# GATITU SECONDARY SCHOOL 

OPENER EXAMS MATHS | 2017 | FORM 2 | TERM 1 (50 MARKS)

## INSTRUCTIONS

Answer all questions provided below

1. Find the least number of the sweets that can be packed into bags which contain either 9 or 15 or 20 or 24 sweets with none left over (2mks )
2. 2438 books are parceled in groups of 10. The parcels are 3 then arranged in piles of 8 . How many parcels are not in plies and how many books are not parceled? (2mks)
3. In a math's test every correct answer scores 2 marks, 1 mark for every wrong answer and no mark for every answer. the test has 30 questions
a) Find
i) The maximum possible score.
(1mk)
ii) The minimum possible score.
b) If joy has 20 correct answers, 8 wrong answers and 2 no answers what marks does she gets? (2mks)
c) Mary scores 23 marks having got 5 answers wrong. How many answers does she get right? (2mks)
4. Solve for $y$
a) $(y \times(-5)) \times-5=3 \times(-5 \times-5)$ (1mk)
b) $(-3) \times((+7)+y)=(-3) \times(+7)+(-3)$
(1mk)
c) $4 \times(8+y)=4 \times 8+4 \times(-3)$
(1mk)
5. Osongo can do a piece of work in 4 hours odour can do the same job in 5 hours and litsutsa can do the same in 12 hours.
a) What fraction of job can each do in 1 hour?
b) If three men work together for 1 hour, what fraction of the job would they do? (2mks)
6. For seven consecutive days, the meteorological department recorded the following amount of rainfall: $0.5,2.2,0.9,0.4,1.6,0.8$ and 1.5 cm . Find the total rainfall for the week giving your answer to the nearest whole number. (2mks)
7. The weekly wage of Wangui is sh 900 . Her expenditure of cosmetics is two thirds of that on food. If she saves the rest of the money, find the expression for her weekly savings (2mks)
8. Given that $a: b: c=5: 3: 10$, what is the ratio of
a) $A$ to $b$
b) B to c
c) A to C
9. Mwangi sell oranges at 7 for sh25. While Musila sells at sh. 45 a dozen who is cheaper?
(2mks)
10. Study the diagram below carefully and answer questions that follows


Note use $\pi$ as3.142
a) Find the area of the shade part
b) Find the perimeter all round the figure
(2mks)
11. A cylindrical tank has a diameter of 5.0 m and contains 110000 litres of water. What is the height of the water in the tank if a 2 m sided solid cube is sunk in the water? (use $\pi=3.142$ ) (4mks)
12. Three litres of water (density $1 \mathrm{~g} / \mathrm{cm}^{3}$ ) is added to 12 litres of alcohol (density $0.8 \mathrm{~g} / \mathrm{cm}^{3}$ ), what is the density of the mixture? (3mks)
13. Two tanks have diesel. The first tank contains 5 times as much as the second when 20 litres of diesel are allowed to flow from the first tank into the second, the first contains 3 times as much as the second what were the original contents of the tanks?
14. Find the area of an irregular shape below on a $1 \mathrm{~cm}^{2}$ grid lines ( 2 mk )

15. In buying and selling of currency, the Kenya commercial bank has the following rates for a euro

|  | EURO BANK RATES |  |
| :--- | :--- | :--- |
|  | Buying $(\mathrm{sh})$ | Selling (sh) |
| 1 EURO | 76.44 | 76.51 |

Moraa toured Kenya from Spain and had 6000 Euros in her pocket. She converted 1500 Euros into shillings to donate to Mathare Children's Home. Then she converted the remaining amount into shillings and gave half of it to her mother.
a) How much money did she donate to Mathare Children's Home in shillings?
(1mk)
b) How much money in shillings did she give her mother?

