

GATITU SECONDARY SCHOOL, P.O. BOX 327 – 01030, GATUNDU.

FORM 1. MATHEMATICS MID TERM EXAMINATION. TERM 3 2015.

NAME: _____ ADM.NO. _____ CLASS: _____

Write your name, adm. and class in the space provided above.

Answer all the questions in the spaces provided below each question.

While clean, organized work may earn you marks, slovenly work will cost you dearly

1. Evaluate each of the following (a) $8\frac{1}{9} - 2\frac{3}{4} + 9/4$ (3mks)

b) $\frac{\frac{1}{2} + \frac{1}{3}}{\frac{1}{7} \text{ of } (\frac{2}{5} - \frac{1}{6})} + \frac{1}{2}$ (4 mks)

2. Find the GCD OF

i) 70, 210, 154

(3mks)

ii) 240, 360, 600, 700

(3mks

3. What is the least length of a school working day in hours if it can be split into exact periods of 30 minutes, 40 minutes or 45 minutes? (3mks

4. Arrange the following fractions in descending order.

i) $\frac{3}{2}, \frac{7}{5}, \frac{9}{10}, \frac{11}{15}, \frac{3}{7}$

(2mks

ii) $\frac{7}{9}, \frac{11}{3}, \frac{4}{5}, \frac{2}{3}$

(2mks

5. Two business partners received $\frac{5}{7}$ and $\frac{2}{7}$ of the business proceeds after a year. The businessman who received the larger share was required to spend $\frac{1}{8}$ of his share to pay all workers. If the business realized sh 180,000.00 how much did the workers receive? (3mks)

6. Express each of the following as a fraction

i) $0.\dot{7}$ (2mks)

ii) $2.\dot{8}\dot{3}$ (2mks)

iii) $1.\dot{5}2\dot{3}$ (3mks)

7. Abiero made three trips from town P to town Q by bus. On two occasions, he returned to P by minibus and once by bus. If the fare to Q from P is sh 180 by bus and sh 220 by minibus, how much did the trips cost him? (3mks)

8. Evaluate

a) $\sqrt{5.38}$ (2mks)

b) $\sqrt{0.0529}$ (2mks)

c) $\sqrt{0.001952}$ 3mks

9. John is twice as old as his brother Edward and their sister Jane is 7 years younger than Edward. Write down an expression for the sum of their ages. (3mks)

b) If the sum of their ages is now 81 years. Find their respective ages. (3mks)

10. Factorise the following expressions

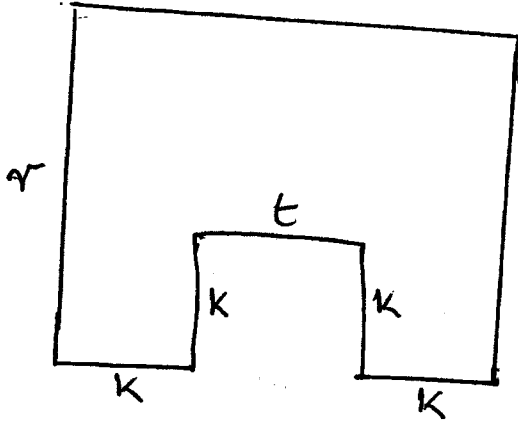
a) $4a^2b + 24a^2c - 14a^3d$. (3mks)

b) $\frac{1}{2}a^2 - \frac{1}{2}ab + \frac{1}{8}a$ (3mks)

$$\frac{1}{2}a^2 - \frac{1}{2}ab + \frac{1}{8}a$$

11. Find a) Perimeter (2mks)

b) area
of the figure below. All measurements are in centimetres. (2mks)



12. The angles of a quadrilateral are in the ratio 6:4:3:2. Calculate the sizes of the angles.
(4mks)

13. Four men can build a stone wall 32m long in 12 days. What length of wall can eight men working at the same rate, build in 8 days.
(3mks)

14. Doris, Pauline and Joan share a number of sweets in the ratio $2\frac{1}{2} : 1\frac{5}{6} : 1\frac{1}{3}$.
Calculate the percentage of the sweets each one gets. (4mks)

15. Express the following measurements to (i) 3d.p (ii) 3 sf (4mks)

a) 341.0032

(i)

(ii)

b) 0.09854

(i)

(ii)

16. A two digit number is such that the sum of its digits is ten. If the digits are interchanged the value of the number increases by seventy two. Find the number. (4mks)

17. An arc PQ of a circle of radius 15cm subtends an angle of 160° at the centre of the circle. Find the length of the arc PQ. Take $\pi = 3.142$. (4mks)

18. A room has two windows, each measuring 1m by 1.5m and a door measuring 2m by 1m. The walls are 3m by 3m each. Find the cost of painting the inner surface of the walls at sh 25 per m^2 . (5mks)

19. Determine the capacity in SI units of a tin measuring 20cm by 30cm by 20cm. (3mks)

20. The reading of liquid in a measuring cylinder is 45cm^3 . A solid of mass 150g is put into the container. If the density of the solid is 8.6 g/cm^3 , find the new reading. (4mks)

21. Solve for the unknown in the following

a) $\frac{y+3}{3} - \frac{y-3}{4} = \frac{1}{12}$

(3mks)

