

MUKINDURI MIXED DAY SECONDARY SCHOOL

FORM ONE MATHEMATICS

MIDTERM 2 2017 EXAMINATION

Name:.....Adm. no.....

- Q1 Work out the following, giving your answer as a mixed number in its simplest form (3mks)

$$\frac{\frac{2}{5} \div \frac{1}{2} \text{ of } \frac{4}{9} - 1\frac{1}{10}}{\frac{1}{8} - \frac{1}{6} \times \frac{3}{8}}$$

- Q2 Evaluate without using tables $1000\left(\sqrt{\frac{0.0128}{200}}\right)$ (3mks)

Q3 Express the numbers each as a product of prime factors

18 and 1296

Hence evaluate $\frac{18^2}{\sqrt{1296}}$ and write your answer in prime factors. (3mks)

Q4 Use tables of squares to determine the following (3mks)

a) 126^2

b) 0.004932^2

c) 1723.5^2

Q5 Work out $\frac{0.0084 \times 3.5}{0.056}$ (2mks)

Q6 Three people Odawa, Mliwa and Amina contributed money to purchase a flour mill. Odawa contributed $\frac{1}{3}$ of the total amount Mliwa contributed $\frac{3}{8}$ of the remaining amount and Amina contributed the rest of the money. The difference in contribution between Mliwa and Amina was Sh. 40,000. Calculate the price of the flour mill.

(4 Marks)

Q7 Use square root tables to evaluate (4mks)

a) $\sqrt{0.4729}$

b) $\sqrt{34253}$

Q8 All prime numbers less than ten are arranged in descending order to form a number.

a) Write down the number formed (1 mark)

b) State the total value of the second digit in the number formed in (a) above (2mks)

Q9 A fruit vendor bought 1948 oranges on a Thursday and sold 750 of them on the same day. On Friday, he sold 240 more oranges than on Thursday. On Saturday he bought 560 more oranges. Later that day, he sold all the oranges he had at a price of Ksh8 each.

Calculate the amount of money the vendor obtained from the sales of Saturday. (4 marks)

Q10 Three years ago, Juma was three times as old as Ali. In two years time, the sum of their ages will be 62. Determine their present ages. (3mks)

Q11 Three bells ring at intervals of 20 minutes, 30 minutes and 45 minutes. The bells will ring together at 12.40pm. Find the time the bells had last rang together. (3mks)

Q12 When 10 is added to twice a number and the result doubled, the final results is 32. Find the number. (3mks)

Q13 Factorize;

a) $a^2 - 4ap - 4p + a$ (2mks)

b) $3px - qy - py + 3qx$ (2mks)

Q14 Grace, Caroline and Jackie shared the profit of their business in the ratio 3:7:10 respectively. If Caroline received sh 56 000

a. Find how much Jackie received (2mks)

b. how much profit did the business make (2mks)

Q15 A, B and C take a total of 2700 seconds to run a race. Their individual time is in the ratio of 5:2:3 respectively. If A was to reduce his time by $\frac{1}{4}$, B increases his by $\frac{1}{2}$ and C maintains the same time, find how long they would all take (in minutes)

(4mks)

d. How much money was given to the charitable organisation in Kshs.
(2 Marks)

Q17 a) Convert the following into fractions in the simplest form. (2mks)

(i) 0.375

(ii) $1.\dot{3}$

b) Round off as indicated in brackets (4mks)

(i) 1.43216 (3d.p)

(ii) 40.0069 (3sf)

(iii) 63290 (2sf)

(iv) 19.99 (nearest whole number)

c) Convert into decimals to 4sf (3mks)

(i) $\frac{89}{9}$

(ii) $\frac{5}{6}$

(iii) $16\frac{3}{8}$

d) Find the HCF of 24, 36 and 56

(1mk)

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Q18 Use mathematical tables to evaluate the following

a) 8.457^2 (2mks)

b) 567.4^2 (2mks)

c) $\sqrt{456.7}$ (3mks)

d) $\sqrt{0.7893}$ (3mks)