

MATHEMATICS

CRAFT MODULE 1 EXAM

ANSWER ALL QUESTIONS IN THIS PAPER

APRIL TERM 2 2019

- 1a) Simplify $\left(1\frac{3}{5} - \frac{1}{2}\right) \div \left(\frac{1}{2} \times \frac{1}{5}\right)$ (3 marks)
- b) The cost price of an article is a quarter of its selling price. Find the profit percentage (2 marks)
- c) Factorize $x^2 - 4 - 3(x-4)$ (4 marks)
- 2a) The line $2y=8-3x$ cuts the y axis at p (0, k). find the gradient of the line and the value of k. (2 marks)
- b) If y varies as the square of x,
 - i) What happens to y when x is trebled
 - ii) Find y when x=3, given that y=12 when x=2 (5 marks)
- c) Two vertical walls are 6m and 3.6m high. they are 3.2m apart. What is the distance between their tops? (3 marks)
- 3a) Calculate the total surface area of the given cuboid. The shaded face has an area of 10.5cm^2



- b) A student expands $(x-y)^2$ incorrectly as $x^2 + y^2$. find his %error if $x=4$ and $y=-6$
- c) Evaluate $\left(8\frac{2}{3}\right)^2 \div \left(4\frac{2}{3}\right)^{-3}$
- 4a) A football team played 15 matches and the number of goals scored is given below

0	2	3	5	2	5	5
2	4	5	0	2	5	-

- i) Make a frequency distribution table its determine the mode and median scores (3 marks)
- b) The values of y in relation to those of x are given in this table

X	1	2	4	20
y	0.2	0.8	3.2	80

How does y vary as x? (3 marks)

- 5a) Mary bought an old sewing machine for sh 750. She paid 35% of the price in cash and paid the balance in 10 equal monthly installments. What was the monthly installments? (4 marks)

b) Simplify $\frac{(3 \times 10^4)}{1.5 \times 10^8 \times 4.0 \times 10^2}$

Giving your answer in standard form. (3 marks)