

0801/205

0802/205

0803/205

SUPPORT SUBJECTS

July 2018

Time: $2\frac{1}{2}$ hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

ARTISAN CERTIFICATE

CLERK/TYPIST COURSE

SALESMANSHIP

STORE KEEPING

SUPPORT SUBJECTS

$2\frac{1}{2}$ hours

INSTRUCTIONS TO CANDIDATES

This paper consists of 22 questions in TWO sections; A and B.

Section A consists of Mathematics Part I and Part II.

Answer ALL the questions in Part I and any TWO questions from Part II.

Section B consists of General Studies Part I and Part II.

Answer BOTH questions in Part I and any SIX questions from Part II.

Write your answers in the answer booklet provided.

Candidates should answer the questions in English.

This paper consists of 7 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

SECTION A: MATHEMATICS

PART I (30 marks)

Answer **ALL** the questions in this part.

1. Simplify $\frac{22}{7} + 1\frac{3}{4} - 5\frac{2}{9}$ (2 marks)

2. A rectangular piece of land has a length of 300 m and a width of 200 m. Determine the area in hectares. (2 marks)

3. Solve the following simultaneous equations

$$\begin{aligned} 2x - 3y &= -5 \\ 3x + 2y &= 12 \end{aligned}$$

(4 marks)

4. A circle has an area of 616 cm². Calculate the perimeter of the circle. (3 marks)

5. Nyariki borrowed Ksh. 2,160,000 for 5 years at a compound interest of 19.5% per annum. Calculate the total interest payable over the period of five years. (4 marks)

6. Margaret scored the following marks in different subjects: 52%, 30%, 87%, 59%, 65%, 61%, 64% and 65%. The class mean was 68%.

(i) Calculate her mean mark. (2 marks)

(ii) Comment on her performance. (1 mark)

7. Determine the volume of a cone which has a radius of 56 cm and a perpendicular height of 120 cm. (2 marks)

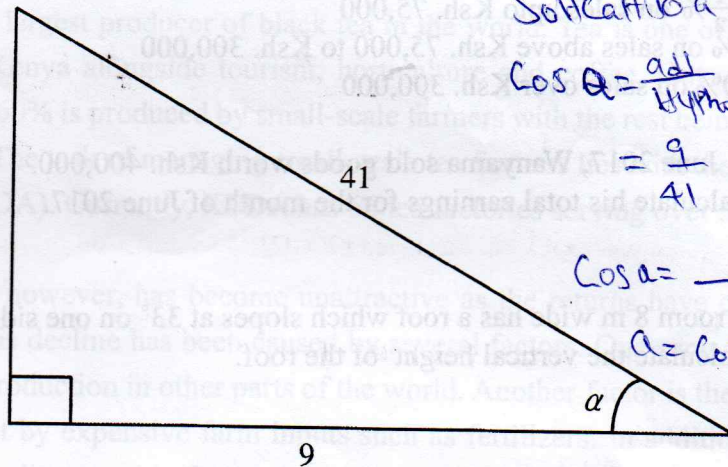
8. Solve the equation $3x^2 - 11x - 4 = 0$ using completion of square method. (4 marks)

9. The temperature in degrees celsius (°C) and the corresponding values in degrees Fahrenheit (°F) are shown in the table below:

°C	10	20	40	60	80
°F	50	68	104	140	176

Construct a graph of degrees Celsius (°C) against degrees Fahrenheit. (3 marks)

10.

Determine $\sin \alpha$ for the triangle given below

Solve for α
 $\cos \alpha = \frac{\text{adj}}{\text{hyp}} = \frac{9}{41}$

$$\cos \alpha = \frac{9}{41}$$

$$\alpha = \cos^{-1}\left(\frac{9}{41}\right)$$

(3 marks)

PART II (20 marks)

Answer any **TWO** questions from this part.

- (a) The profits of a business are shared by three partners; Alex, Beatrice and Carol in the ratio 3:5:2 respectively. In 2016, the business earned a profit of Ksh. 180,000.

Determine:

$$\text{Alex} = \frac{3}{10} \times 180,000 =$$

$$\text{Beatrice} = \frac{5}{10} \times 180,000 =$$

$$\text{Carol} = \frac{2}{10} \times 180,000 =$$

- (i) the amount received by each partner; (3 marks)
- (ii) the percentage of profits received by Carol. (2 marks)

- (b) A rectangular field measures 120 m by 100 m. The length is increased by 20% and the width is increased by 30%. Calculate the area of the new field in acres. (Take 1 ha = 2.471 acres)

increase
length

(5 marks)

12.

- (a) A packet of 20 kg grade A tea is blended with a 30 kilogram of grade B packet. The cost of grade B tea is Ksh. 400 per kilogram. The blended tea is sold at Ksh. 550 per kilogram. The profit is 25% of the cost. Calculate the cost of the grade A tea per kilogram.

(5 marks)

- (b) A square based pyramid has a base area of 2916 cm² and a slant length of 36 cm. Calculate the total surface area of the pyramid. (5 marks)

13.

- (a) Wanyama earns a basic salary of Ksh. 20,000 per month plus a commission as follows:

$2\frac{1}{2}\%$ on sales upto Ksh. 75,000

5% on sales above Ksh. 75,000 to Ksh. 300,000

10% on sales over Ksh. 300,000

In June 2017, Wanyama sold goods worth Ksh. 400,000.

Calculate his total earnings for the month of June 2017.

(5 marks)

- (b) A room 8 m wide has a roof which slopes at 33° on one side and 40° on the other side.

Calculate the vertical height of the roof.

(5 marks)

SECTION B: GENERAL STUDIES

PART I (20 marks)

Answer **BOTH** questions in this Part.

14. The following information relates to Jaribu Traders for the month of May 2017.

- May 1 Started business with Ksh. 100,000 in cash
- 2 Paid rent at Ksh. 1,000 in cash
- 5 Bought goods for Ksh. 15,000 and paid in cash
- 8 Sold goods for Ksh. 9,000 and received cash
- 11 Deposited Ksh. 40,000 from the cash till into the bank account
- 14 Paid electricity of Ksh. 2,700 by cheque
- 31 Bought stationery for Ksh. 8,600 and paid by cheque

Using the format provided, on page 7 prepare a two column cash book for the month of May 2017.

(10 marks)

15. Read the passage below and answer the question that follow.

Kenya is the largest producer of black tea in the world. Tea is one of the **top** foreign exchange earners for Kenya alongside tourism, horticulture and coffee. Out of all the tea produced in Kenya, over 60% is produced by small-scale farmers with the rest being produced by large-scale tea farmers. The task of managing small-scale tea farmers lies with the Kenya Tea Development Agency (KTDA). Currently, KTDA has 66 tea factories serving over 500,000 farmers.

Tea farming, however, has become unattractive as the returns have continued to **decline** over the years. This decline has been caused by several factors. One such factor is low prices of tea due to over production in other parts of the world. Another factor is the rising cost of production brought about by expensive farm inputs such as fertilizers. In addition, drought periods affect production leading to wide fluctuations in output in tea producing areas. Besides, lack of credit facilities is a major problem affecting small-scale farmers. This makes it difficult for the farmers to buy inputs.

Moreover, pests and diseases have not spared the sector. In some seasons, the crop is attacked by diseases, making the farmers to incur huge losses. Farmers are also experiencing a lot of hardships due to lack of labour. Many young people have abandoned the **tedious** exercise of tea picking and have opted for easier ways of earning income such as the thriving Boda Boda industry. Unfortunately, tea farming is labour intensive and once the crop is due for picking, any delay leads to losses.

To address these problems, experts feel that KTDA requires major restructuring. To begin with, the way KTDA is currently structured is a **big burden** to farmers as it takes a big portion of tea earnings. KTDA has been advised to out source some of its functions from the private sector. One such function is the delivery of green leaf from buying centres to factories which consumes millions of shillings per month. Such measures will protect the Kenyan farmers and enable them rebuild their confidence in the sector.

Adapted from: "Daily Nation", Wednesday November 30, 2016.

- (a) State the meaning of each of the following words and phrase as used in the passage. (4 marks)
- (i) top;
 - (ii) decline;
 - (iii) tedious;
 - (iv) big burden.
- (b) State, according to the passage, the factors that have caused a decline in tea farming returns. (6 marks)

PART II (30 marks)

Answer any **SIX** questions from this part.

16. (a) List **three** forms of written communication that may be used to pass information. (3 marks)
- Email Letters / - proposal
- (b) State **two** formats that may be used when writing reports. (2 marks)
Briefs summaries - letters memos.
17. (a) Outline **three** barriers to effective communication that may be caused by the sender. (3 marks)
- Physical barriers / - Attitudinal barriers
- system design faults
- (b) State **two** reasons why it is important to maintain eye contact in the face-to-face communication. (2 marks)
- It is economical
- personal touch between sender and receiver.
18. (a) State **three** ways in which county governments can increase their forest cover. (3 marks)
- (b) State **two** negative effects of watching television. (2 marks)
19. (a) List **three** ways in which co-operative societies contribute to nation building. (3 marks)
- (b) State **two** effects of noise pollution on the society. (2 marks)
Damage of physiological health / - phyPortension
20. (a) Outline **three** roles of parents in a family. (3 marks)
- as implementers of professional advice
- as service providers
- (b) State **two** ways in which leisure time can be misused. (2 marks)
21. (a) List **three** reasons why poor people tend to have more children. (3 marks)
- (b) State **two** ways in which the Harambee Philosophy contributes to nation building. (2 marks)
22. (a) List **three** ways in which the youth can avoid drug and substance abuse. (3 marks)
- (b) State **two** ways in which over population contributes to high crime rate. (2 marks)

Letter
New paper

Two Column Cash Book

Date	Particulars	Cash	Bank	Date	Particulars	Cash	Bank
		Sh	Sh			Sh	Sh

THIS IS THE LAST PRINTED PAGE.

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