MATHEMATICS

Time: 2 hours

READ THESE INSTRUCTIONS CAREFULLY

- 1. You have been given his question booklet and a separate answer sheet. The question booklet contains 50 questions.
- 2. Do any necessary rough work in this booklet.
- 3. When you have chosen your answer, mark it on the ANSWER SHEET, not in this question booklet.

HOW TO USE THE ANSWER SHEET

Like only an ordinary pencil.

Make sure that you have written on the answer sheet:

YOUR INDEX NUMBER YOUR NAME NAME OF YOUR SCHOOL

- By drawing a dark line inside the correct numbered boxes mark your full Index Number (i.e. School Code Number and the three-figure Candidate's Number) in the grid near the top of the answer sheet.
- 7. Do not make any marks outside the boxes.
- 8. Keep the sheet as clean as possible and do not fold it.
- For each of the questions 1-50 four answers are given. The answers are lettered A, B, C and D. In each case only ONE of the four answers is correct. Choose the correct answer.
- 10. On the answer sheet the correct answer is to be shown by drawing a dark line inside the box in which the letter you have chosen is written.

Example

In the Question Booklet:

- 44. A road measuring 3 cm on a map has an actual length of 12 kilometres. What is the scale used on the map?
 - A. 1:4
 - B. 1:400
 - C. 1:4 000
 - D. 1:400 000

The correct answer is D (1:400 000).

On the answer sheet:

4 (A) (B) (C) (D) 14 (A) (B) (C) (D) 24 (A) (B) (C) (D) 34 (A) (B) (C) (D) 44 (A) (B) (C)

In the fifth set, the box with the letter D printed in it is marked.

- 11. Your dark line MUST be within the box.
- 12. For each question ONLY ONE box is to be marked in each set of four boxes.

This Question Paper consists of 15 printed pages and 1 blank page.

- 1. What is 399-90485 rounded off to the nearest tending political minush the post off
 - A. 400
 - B. 399-905
 - C. 399-90
 - D. 399.9
- 2. What is the Greatest Common Divisor (GCD) of the numbers 32, 48 and 56. By 5 of direct Final

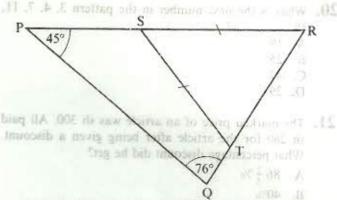
 - B. 168
 - C. 672 2e4
- D. 8660 68
- 3. Weat is three million six thousand four hundred and seventy two less one thousand written in symbols? SEFE IN A. 3599472

And sent one parcel weighing 2

- яВ. 3005472
 - C. 3007472

 - D. 3059472
- 19. The lighter below shows a reconstillar laws ABCD 4. Which is the correct order of writing the fractions
 - $\frac{3}{8}$, $\frac{5}{16}$, $\frac{11}{32}$, $\frac{13}{48}$ from the largest to the smallest?

 - B. $\frac{3}{8}, \frac{5}{16}, \frac{11}{32}, \frac{13}{48}$
 - C. $\frac{13}{48}, \frac{5}{16}, \frac{11}{32}, \frac{3}{8}$ med
 - D. $\frac{3}{8}, \frac{11}{32}, \frac{5}{16}, \frac{13}{48}$
- 5. What is the place value of the digit 7 in the number 3470268?
 - A. Thousands
 - B. Ten thousands nwal and In ages and so said
 - C. Seventy thousands
 - D. Hundred thousands
- 6. In the figure below lines ST and SR are equal. Angle $RPQ = 45^{\circ}$ and angle $PQR = 76^{\circ}$.



What is the size of angle PST?

- A. 135°
- B. 121°
- C. 118°
- D. 62°

- A company sold 2.5 tonnes of rice in 2-kg packets. How many packets were sold?
 - A. 125
 - B. 1250
 - C. 2500
 - D. 5000
- 8. Below is the number of tree seedlings planted by each pupil on a tree planting day:

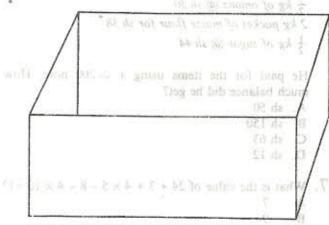
10	8	15	11	9	17	14	12	14	13
the	10	18	8	9	16	13	13	10	12
	H2312	Tenning.	may m	gus h		14 143	1.250	W 911	

What was the mean number of seedlings planted by each pupil?

- A. 12 1
- B. 222
- mule C. 12 1 own B at bassaroxs of 1 a rad W
- **9.** What is the value of $\frac{0.5 + 0.2 \times 4.1 0.31}{2.000}$?
 - A. 128
 - B. 60
 - C. 132-65
 - 15. One hundred and twenty little of julo 2:02 a.d.
- 10. A length of 4.6 cm on a scale drawing represents an actual length of 9200 m. What is the scale used?

DOM:

- A. 1:200
- B. 1:2000
- C. 1:20000
- D. 1:200000
- The diagram below represents an open rectangular trough.



What is the difference between the number of faces and the number of edges?

- A. 7
- B
- C.
- D. 12

- **2.** What is the value of $\frac{5}{8} + \frac{1}{8} + \frac{2}{3} \frac{3}{8}$? 12. What is the value of $\frac{5}{8} + \frac{1}{8} + \frac{2}{3}$

 - B.
- the or the country of 13. A bag of sugar weighed 108.5 kg. Mwangi bought 16 bags. He then removed 0.3 kg of sugar from each bag. What total weight of sugar remained?

S. Below is the nu

Rog Co

- A. 1736 kgc a to seeman usem out any and w
 - B. 9082 kg
 - C 1931-2 kg
 - eD51735.7 kg
- What is $1\frac{1}{3}$ % expressed as a ratio in its simplest form?

9. What is the value of 0.5 + 10.2 × 4.1

D0000

- A. 3:2
- B. 2:300
- C. 3:200
- D. 200:3
- 15. One hundred and twenty litres of juice is packed in two decilitre packets. How many packets are needed? actual length of 9200 m. What is the scul 06:scA

 - B. 600
 - C. 6000
 - D. 60000
- **16.** Musa bought the following items from a kiosk:
 - 3 kg of tomatoes @ sh 25
 - ½ kg of onions @ sh 30
 - 2 kg packet of maize flour for sh 38
 - kg of sugar @ sh 44

He paid for the items using a sh 200 note. How much balance did he get?

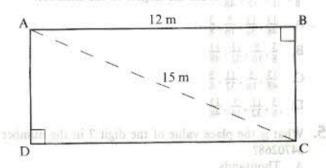
- A. sh 50
- B. sh 150
- C. sh 63
- D. sh 12
- 17. What is the value of $24 \div 3 + 4 \times 5 8 \div 4 \times 10 + 1$?
 - A. 7
 - 9
 - Co 44 min and negative between the mink a star of
 - D. 131

18. The table below shows the cost in shillings of sending parcels through the post office.

Weight steps	Africa	Europe/ Near East	Restrof the world
Up to 1 kg	940-00	1030-00	1070-00
Over 1 kg up to 3 kg	1335-00	1390-00	1455-00
Over 3 kg up to 5 kg	1695-00	1740-00	1920-00
Over 5 kg up to 10 kg	2370-00	2380-00	2755-00

Asif sent one parcel weighing 2 kg to Africa and another weighing 3 kg 600 g to Near East. How box much did he spend?ant xiz millim sent a tafW . E

- Avysh 3075 inw hazaudit aan wal give ytaava
 - B. sh 1335
 - C. sh 3030
 - D. sh 2380
- The figure below shows a rectangular lawn ABCD in which AB = 12 m and AC = 15 m.



What is the area of the lawn? Office world my

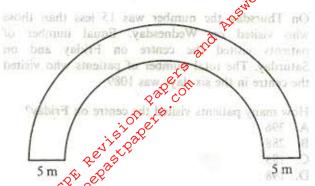
- A. 180 m²
- B. 108 m²
 - C. 54 m² 36 m2 R2 bns T2 and woled small ent at 30
 - D.
- 20. What is the next number in the pattern 3, 4, 7, 11,

RPQ = 4M and ongle POR = 76"

- A. 19
- B. 25
- C. 43 D. 29
- 21. The marked price of an article was sh 300. Ali paid sh 260 for the article after being given a discount. What percentage discount did he get?
 - A. 86²/₃%
 - B. 40%
 - C. 15 5 %
 - D. 13 1 %

and the number of suges?

22. The figure below represents a vegetable garden bounded by two semi-circles, 5 m apart. The diameter of the larger semi-circle is 30 mc?



What is the perimeter of the garden? (Take $\pi = 3.14$)

Ac 7860 mlo scatture bevine cent to mera addit 18

88.50 m rabinity off to adject off from 0416

D. 96.35 m on the cylinder in on 25.96 'D.

Take 22 = 22 Asha was given a loan of sh 48 000. She repaid the loan after two years with compound interest at the rate of 25% p.a.

How much money did she pay altogether?

12. The finde helow shows Mwasi's n000 00 da .A he

B. sh 63 000 gained washord arms to place C. sh 72 000 stoq tol emoon edt no manarrolm

D. sh 75 000

24. What is the square root of $1\frac{7}{9}$?

		7	T. C.	
A. 4/9	000 TS da	900 åč, de	sh 45 000	orr

B.

A nicebary was drawn to represent the neormation above. If the angle representing the locame the tOans

D. 3 130 what was the 'nowne for public it is so of the same for public it.

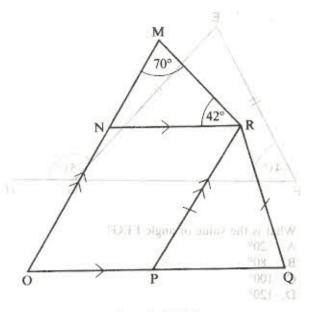
000 BS I ns . A

33. A bas left Migort town for Natrobi B 19.00 h B arrived in Nagrobi 9 hours liner. At what there and the bes arrive in Namobil

FL 80 1 8

34. According to a survey, three antelopes die every five ministers whereas four are horn every minute. What in the difference between the number of antelopes that are norm and those that die in one day?

25. The figure below is made up of a parallelogram NOPR, triangles PRQ and MNR. Angle NMR = 70° and angle NRM = 42°



What is the size of angle PRQ?

shopkeepen three sh 1000 notes. He to Alle B. 68°

C. 44°

D. 70°

A saleswoman was paid a monthly salary of sh 9000. She was also paid a commission of 10% for all the goods she sold above sh 10 000. In one month she sold goods worth sh 25 000.

What did she earn at the end of that month?

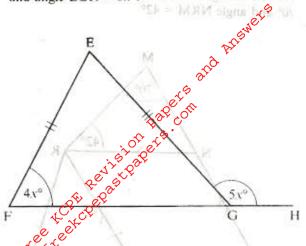
A. sh 11 500 your a ve blos ban bomborn rague

B. sh 12 500

Days	Мон	sti T	00	sh 10 500 sh 1500	C. sl D. sl	82 6
Tonnes produced	08	55	30	00.	25	
Tomus sold	044	76	-04-			

On which day was the number of tonnes of sugar sold one and a half times the number of tonne-

27. In triangle EFG line EF = EG, angle EFG = 4x° and angle EGH = 5x0,000 OST estation 394



What is the value of angle FEG?

20°

100°

120°

28. Kigen bought goods worth sh 2400. He gave the shopkeeper three sh 1000 notes. He received the balance in equal numbers of sh 200 and sh 100 notes.

What total number of notes did he receive? A saleswoman was paid a monthly salary

A. 6

She was also paid a commission of 10% 12

29. The table below shows the number of tonnes of sugar produced and sold by a factory in 6 days.

wild goods worth to 25 910

Days	Mon	Tue	Wed	Thur	Fri	Sat
Tonnes produced	60	25	30	20	25	15
Tonnes sold	40	70	40	30	50	25

On which day was the number of tonnes of sugar sold one and a half times the number of tonnes produced?

- A. Thur
- B. Mon
- C. Wed
- D. Sat

30. The number of patients who visited a health centre on Monday was 125, on Tuesday was 163 and on Wednesday was 210 polymers assets and to referring

On Thursday the number was 15 less than those who visited on Wednesday. Equal number of patients visited the centre on Friday and on Saturday. The total number of patients who visited the centre in the six days was 1089

How many patients visited the centre on Friday?

- B. 288
- C. 183
- D. 198
- What is the permitter of the gurden" (Tanca = 1.14) 31. The area of the curved surface of a cylinder is 6160 cm2. The height of the cylinder is 10 cm.

What is the radius of the cylinder in centimetres? (Take $\pi = \frac{22}{7}$)
A. Asha was group a loan of the 48 000 and $\frac{23}{100}$.

rate of 22 = p.a.

- 14 loan after two years with compound int B.
- C. 196
- 32. The table below shows Mwasi's income from the sale of farm produce, during one year. The information on the income for potatoes is not given.

How mone money did she pay altogethe

Produce	Wheat	Maize	Beans	Potatoes
Income	sh 45 000	sh 36 000	sh 21 000	2

A pie-chart was drawn to represent the information above. If the angle representing the income for beans was 63°, what was the income for potatoes?

- A. sh 120 000
- B. sh 18 000 -
- C. sh 17 850
- D. sh 102 000
- 33. A bus left Migori town for Nairobi at 1900 h. It arrived in Nairobi 9 hours later. At what time did the bus arrive in Nairobi?
 - A. 3.00 p.m.
 - B. 3.00 a.m.
 - C. 4.00 p.m.
 - D. 4.00 a.m.
- 34. According to a survey, three antelopes die every five minutes whereas four are born every minute. What is the difference between the number of antelopes that are born and those that die in one day?
 - A. 4896
 - B. 1440
 - C. 5760
 - D. 2448

35. Construct the triangle JKL such that JK = JL = 5.5 cm and KL = 7 cm. Draw the bisector of angle KJL to meet line KL at M. The such that JK = JL = 5.5

Which one of the following statements is correct from the construction

- A. Triangle JML is an isosceles triangle.
- B. Triangle JKQ is right angled.
- C. Line JM R perpendicular to KL.
 - D. Angle KK = 45°.
- 36. The him purchase price of a TV set is 40% more than the cash price. The cash price is sh 20 000. Ochieng paid sh 2100 as a monthly instalment for 10 months.

48. A simple per hought soda as follown

the then spent sh 50 on transpor

How much had he paid as deposit?

- A. sh 8000 62 30 lm 00% to ansists out T
- B. sh 13 000 the tay lim 002 to return weal'T
- C. sh 1000 to so will see to some and
- D. sh 7000
- 37. A factory hires 12 workers to complete a piece of work in 5 hours. If 2 of the workers do not turn up, how long will it take to complete the work?
 - A. 60 h
 - B. 30 h
 - C. 24 h
 - D. 6 h
- 38. Construct a triangle XYZ such that side YZ = 6 cm, angle YZX = 50° and angle ZXY = 35°

What is the length of side XZ?

- A. 8-1 cm
- B. 10-4 cm
- C. 4-6 cm
- D. 3-4 cm
- 39. Which one of the following expressions is the simplest form of $\frac{4(tq+t)+2(3q-2tq)}{2(t+q)+2q}$?
 - A. $\frac{2t + 3q}{t + 2a}$
 - $B. \quad \frac{2tq + 4t + 3q}{t + 3q}$
 - $C. \quad \frac{2tq + t + 6q}{2t + 3q}$
 - $D. \frac{2t + 3q}{t + 3q}$

40. Construct the circle that touches the sides of triangle

market at an average speed of 5 woled VUT econd.

After staying at the market for 20 minutes, he cycled back and took 25 minutes to result home.

What was the average speed at metres per second.

A. 5 metres per second.

B. 4 metres per second.

C. 2 metres per second.

C. 2 metres per second.

A. 6 metres per second.

What is the difference in their values in about mattres!

What is the difference in their values in about 2.2 minutes?

A. 2.3 minutes?

A. 3.4 doptiesper hought it shirt for an 300 ver then sold in for ab 360 after giving it discount was given.

A. 3.7 market.

B. 27 market.

B. 27 minutes.

A. 3.7 market.

B. 27 minutes.

B. 27 m

What is the radius of the circle?

- A. 7 cm
- B. 6.3 cm
- C. 3-3 cm
- D. 5-8 cm
- A shopkeeper bought 5 trays of eggs at sh 120 per tray. Ten eggs broke and she sold the rest at sh 6 per egg.

If a tray holds 30 eggs, what percentage profit did she make?

- A. 50%
- B. 40%
- C. 28 4 %
- D. 240%
- 42. Muli spent $\frac{3}{10}$ of his salary on food and $\frac{2}{5}$ on rent. he was left with sh 2100.

2815 com

What was his salary?

- A. sh 3000
- B. sh 3675
- C. sh 4900
- D. sh 7000

43. Mambo took 30 minutes to cycle from home to the market at an average speed of 5 metres per second. After staying at the market for 20 minutes, he cycled back and took 25 minutes to reach home.

What was the average speed in metres per second, for the whole journey?

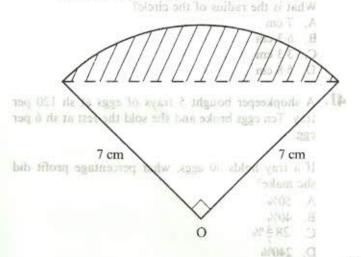
- A. 5 1 metres per second
- B. 4 metres per second
- C. 2 metres per second
- D. 6 metres per second
- 44. One cuboid measures 2 m by 4 m by 3 m. Another cuboid measures 10 cm by 8 cm by 5 cm.

what is the difference in their volumes in cubic metres?

- A. 23-6
- B. 23-96
- C. 23-996
- D. 23,9996
- **45.** A shopkeeper bought a shirt for sh 300. He then sold it for sh 360 after giving a discount of 10%.

What percentage profit would he have made if no discount was given?

- A. 331 %
- B. 27 7 %
- C. 25%
- D. 20%
- 46. The figure below represents a quarter of a circle centre O. The radius of the circle is 7 cm.



What is the area of the shaded part? (Take $\pi = \frac{22}{7}$)

he was left with sh 2100.

C sh 1900

- Muli spent if of his islary on myletel Aon rent.
 - B. 14 cm²
 - C. 28-5 cm²
 - D. 63 cm²

47. Sara bought pawpaws, oranges and mangoes. The number of pawpaws bought was 8 more than the number of oranges. The number of mangoes was twice the total number of oranges and pawpaws.

Which one of the following statements is correct.

The total number of fruits bought was 48.

If the number of oranges was x, which of the equations below can be used to find the number of oranges bought?

- A. 3x + 24 = 48
- B. 6x + 16 = 48 to going scattering said self.
- Out C = 6x + 24 = 48 and C = 6x + 24 = 48
- Ochieng paid sh 2000 as a m84 = 161rt xxxx d for 10
- 48. A shopkeeper bought sodas as follows:

Two crates of 300 ml @ sh 415 Three crates of 500 ml @ sh 563 Five crates of one litre @ sh 415.

He then spent sh 50 on transport.

If he had five thousand shillings, how much money did he remain with?

- A. sh 356
- B. sh 406
- C. sh 3557
- D. sh 4644

angle YZX = 50° and angle ZXV = 35°
What if the length of side XZ!

Construct a triangle XYZ fach that odd YZ = 6 cm.

A. 8-1 cm B. 10-4 cm

mo d-6

ma bet .C

39. Which one of the lohowing expressions = the simplest form of $\frac{4(tq+t)+2(3q-3tq)}{2(t+q)+2g}$

N 21 + 34

2iq + 4i + 3q

210 + 1 + 60

W-15

