STANDARD SEVEN - YEAR 2020

MATHEMATICS

Time: 2 hours

INSTRUCTIONS TO CANDIDATES (Please read these instructions carefully).

1. You have been given this 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 the question booklet.
    HOW TO USE THE ANSWER SHEET.

4. Use an ordinary pencil.

5. Make sure that you have written on the answer sheet:

    YOUR NAME

    NAME OF YOUR SCHOOL

6. 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 your answer sheet as clean as possible and do not fold it.

9. For each of the questions 1-50, four answers are given. The answers are lettered A, B, C, D. In each case, only **ONE** of the four answers is correct. Choose the correct answer.

10. On the answer sheet, show the correct answer by drawing a **dark line** inside the box in which the letter you have chosen is written.

    Example:
    In the Question Booklet:

31. Find the next number in the sequence 1, 3, 5, 7, _____
    A. 8
    B. 11
    C. 13
    D. 9

    The correct answer is **D**.

    On the Answer sheet:

    1 |A| |B| |C| |D| **11** |A| |B| |C| |D| **21** |A| |B| |C| |D| **31** |A| |B| |C| |D| **43** |A| |B| |C| |D|

    In the set of boxes number 31, the box with 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 7 printed pages.

TURN OVER

1. What is the number 2002002 written in words?
   A. Twenty million two thousand and two.
   B. Two million two thousand and two.
   C. Two million two hundred and two.
   D. Two million two thousand and twenty.

2. What is the place value of digit 7 obtained in the product of 562 and 314?
   A. Seventy thousand
   B. Thousands
   C. Ten thousands
   D. Hundred thousands

3. What is the LCM of 36 and 24 as the product of their prime factors?
   A. 2 x 2 x 2 x 3 x 3
   B. 72
   C. 2 x 2 x 3
   D. 12

4. What is the value of $2\frac{3}{4}+3\frac{1}{2}-1\frac{1}{4}$?
   A. $4\frac{1}{4}$

   B. $4\frac{3}{4}$

   C. $5\frac{1}{2}$

   D. 5

5. What is the smallest number that can be added to 8259 to make it divisible by 11?
   A. 9
   B. 2
   C. 3
   D. 1

6. What is the value of $\left(4\frac{1}{2}\right)^2$?

   A. $20\frac{1}{4}$ B. $16\frac{1}{16}$

   C. $8\frac{1}{4}$ D. $20\frac{1}{2}$

7. What is the total value of digit 2 in the number 36.472?
   A. Thousandth
   B. 0.02
   C. 0.0002
   D. Two thousandths

8. In a meeting 30% of attendants were adults and the rest were youths. How many youths were there as decimal?
   A. 70%
   B. 0.7
   C. 0.07
   D. 0.03

9. Convert $\frac{6}{11}$ as decimal and give your answer correct to 3 decimal places.
   A. 0.545
   B. 0.546
   C. 0.554
   D. 0.454

10. In a farm $\frac{1}{4}$ of animals are goats, $\frac{1}{3}$ are sheep, $\frac{1}{8}$ are camels and the rest are donkeys. What fraction represents donkeys and goats?

    A. $\frac{7}{24}$

    B. $\frac{13}{24}$

    C. $\frac{17}{24}$

    D. $\frac{1}{6}$

11. What is the value of 0.01627 x 10000?
    A. 1627
    B. 16.27
    C. 162.7
    D. 16270

45. The diagram below shows time table for buses from town A to F

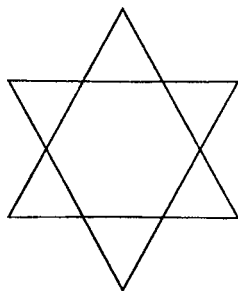| Town	Arrival time	Departure time
A		6.30a.m.
B	7.30a.m.	7.50a.m.
C	8.50a.m.	9.00a.m.
D	9.45a.m.	10.00a.m.
E	10.50a.m.	10.55a.m.
F	11.30a.m.	11.45a.m.

How long did the bus take to travel from town A to town D?

A. 3hr 15min

B. 3hr 30min

C. 2hr 15min

D. 2hr 30min

46. The table below shows how pupils attended school in a class of 30 pupils.

Days	Mon	Tue	Wed	Thurs	Fri
No. of pupils present	30	28	30	26	26

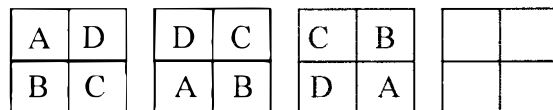What was the mean class attendance in the week?

A. 20

B. 30

C. 28

D. 26

47. How many triangles can be seen in the figure below?

A. 6

B. 7

C. 9

D. 8

48. Convert $2\frac{1}{2}$ tonnes into grammes.

A. 2500g

B. 2500000g

C. 25000g

D. 250000g

49. What is the next shape in the pattern below?

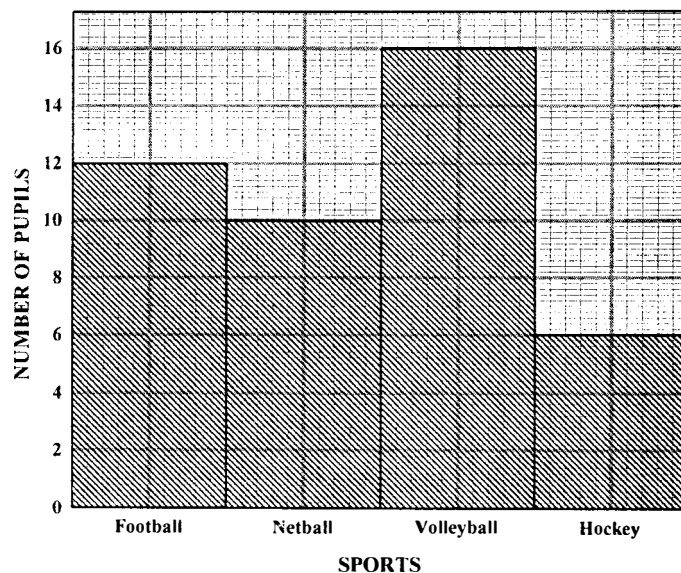| A	D		D	C		C	B
B	C		A	B		D	A

A.
D	A
C	B

B.
D	C
A	B

C.
B	A
C	D

D.
A	D
B	C

50. The graph below shows how pupils selected their favourite sports in a group of 44 pupils.

How many more pupils voted for volleyball and netball than football and hockey?

A. 26

B. 18

C. 44

D. 8

12. What is the value of 12 ÷ 6 + 3 x 2?

A. 10

B. 3

C. 9

D. 8

13. Arrange the fractions $\frac{2}{3}, \frac{3}{4}$ and $\frac{3}{8}$ from the smallest to the largest.

A. $\frac{3}{4}, \frac{2}{3}, \frac{3}{8}$

B. $\frac{2}{3}, \frac{3}{4}, \frac{3}{8}$

C. $\frac{3}{8}, \frac{2}{3}, \frac{3}{4}$

D. $\frac{3}{8}, \frac{3}{4}, \frac{2}{3}$

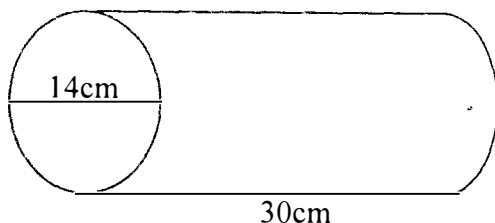**14.** What is 120 increased by 10%?

A. 12

B. 132

C. 130

D. 122

15. What is the value of $\sqrt{0.0196}$?
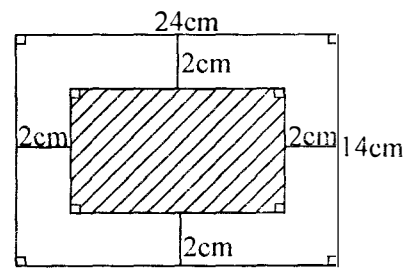
A. 0.14

B. 0.014

C. 0.0014

D. 1.4

16. A cylindrical container has a diameter of 14cm and a length of 30cm as shown below.

30cm

What is the area of its cross-section?

A. 4620cm²

B. 154cm²

C. 77cm²

D. 14cm²

17. What is the area of the shaded part?
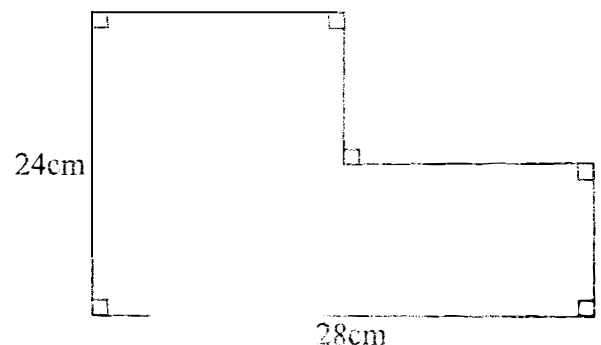

A. 200cm²

B. 4cm²

C. 336cm²

D. 136cm²

18. A donkey cart was loaded with 6 bags of cabbages each 50kg, 10 bags of onions each 120kg and four crates of tomatoes each 60kg. What is the total mass of such two donkey carts in tonnes?

A. 1740

B. 1.74

C. 3480

D. 3.48

19. A rectangular piece of land measures 70m by 40m. What is its area in hectares?

A. 2800

B. 2.8

C. 28

D. 0.28

20. What is twice perimeter of the figure below?
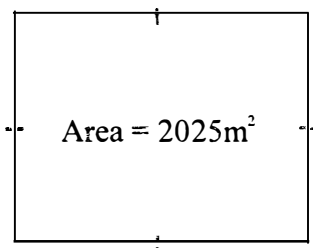

A. 52cm

B. 104cm

C. 208cm

D. 308cm

21. A pupil rolled a cylindrical tin with a diameter of 28cm 10 times. What distance did it cover in cm?

A. 280cm

B. 880cm

C. 88cm

D. 440cm

22. A rectangular room is 8m long, 6m wide and 4m high. What is the surface area of the walls?

A. $192m^2$

B. $96m^2$

C. $112m^2$

D. $64m^2$

23. What is $6400cm^3$ converted into litres?

A. 640

B. 64

C. 0.64

D. 6.4

24. A sports meeting started at 11.35a.m. It took 4 and a half hours. At what time did it end in a.m./p.m. system?

A. 4.05p.m.

B. 1605p.m.

C. 4.05a.m.

D. 1605hr

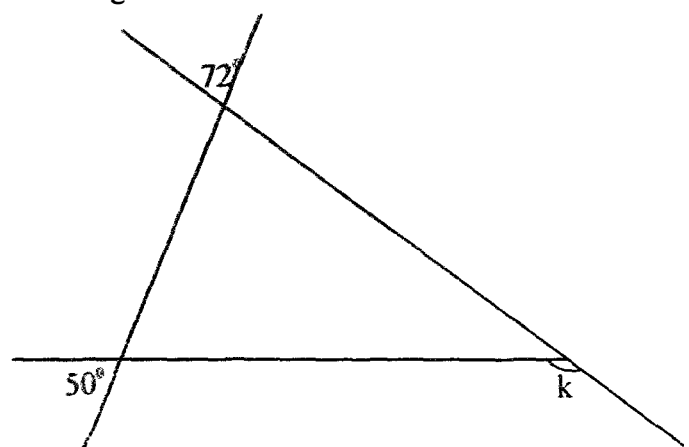**25.** A square piece of land has an area of $2025m^2$ as shown below. What is the length of each side in m?

Area = $2025m^2$

A. 35

B. 55

C. 45

D. 65

26. What is $\frac{2}{5}(10k + 15p) + \frac{3}{4}(8k - 4p)$ in simplest form?

A. 3k + 10p

B. 10k + 3p

C. 10k - 3p

D. 10k + 9p

27. What is the value of w in

3w + 10 + 2w + 12 = 52?

A. $14\frac{4}{5}$

B. 6

C. 12

D. 10

28. In a meeting there were 36 men. The number of women was represented by P and that of youth was 2p. Which of the following correctly represents total number of people who were there?
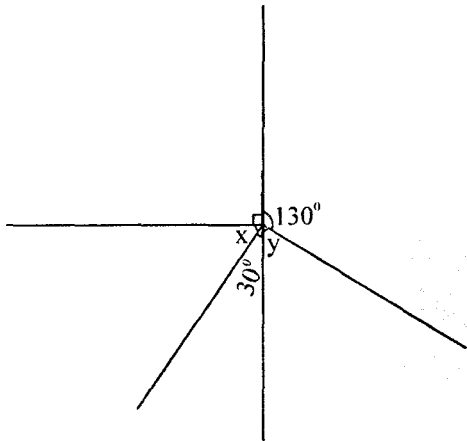
A. 3p + 36

B. 3p - 36

C. 3p

D. $\frac{3p + 36}{3}$

29. What is the measure of angle marked k in the figure below?

A. $58°$

B. $132°$

C. $108°$

D. $122°$

30. Which of the following statements is **true** about a square and a rectangle?

A. All interior angles add upto 360^0.

B. All sides are equal.

C. Each angle is 60^0.

D. All sides are parallel.

31. In the figure below angle **x** and **y** are equal. What is the size of angle **y**?

A. 110^0

B. 55^0

C. 70^0

D. 120^0

32. Using a ruler and a protractor draw triangle KLM such that line KL = 6cm, angle KLM = 80^0 and angle LKM = 50^0. What is the length of line KM?

A. 6cm

B. 7cm

C. 7.7cm

D. 5.8cm

33. What is the complement of angle 33^0?

A. 147^0

B. 57^0

C. 67^0

D. 137^0

34. Which of the following statements is true?

A. Acute angle > Obtuse angle.

B. Reflect angle < Right angle.

C. Obtuse angle < Reflex angle.

D. Right angle = Acute angle.

35. A farmer sold a goat at shs. 8000 and made a profit of shs. 3000. What was his percentage profit?

A. 50%

B. $37\frac{1}{2}$%

C. 30%

D. 60%

36. The table below shows prices of items in a shop.

Item	Cost	
	shs	cts
Shirt	500	00
Blouse	400	00
Jacket	800	00
Skirt	700	00
Trouser	700	00

Pauline bought a shirt, 2 blouses, a jacket and a skirt. She gave out three-one thousand shilling notes. How much balance did she receive?

A. shs. 200

B. shs. 2800

C. shs. 400

D. shs. 2600

37. Omondi sold a radio for shs. 4800. If he had bought it at shs. 5400, calculate his loss or profit.

A. shs. 600 loss

B. shs. 600 profit

C. shs. 10200 profit

D. shs. 10200 loss

38. The table below shows postal charges for small packets.

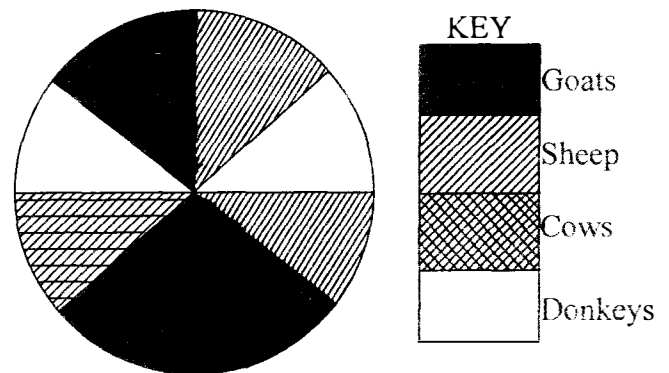| Upto 100g	35	00
Over 100g upto 25g	50	00
Over 250g upto 500g	76	00
Over 500g upto 1kg	90	00
Over 1kg upto 2kg	120	00

Andese sent three small packets 275g, 600g and 1.5kg. How much did he pay altogether?
A. shs. 216
B. shs. 286
C. shs. 120
D. shs. 276

39. Amina paid shs. 6400 for an item after she was allowed a discount of shs. 500. What was its marked price?
A. shs. 5900
B. shs. 7000
C. shs. 5800
D. shs. 6900

40. John deposited shs. 10000 in a bank that paid a simple interest at a rate of 10% per year. How much interest had his money earned after 2 years?
A. shs. 12000
B. shs. 8000
C. shs. 2000
D. shs. 20000

41. A motorist travelled from town A to town B a distance of 360km from 8.00a.m. to 12 noon. What was his speed in km/hr?
A. 80km/hr
B. 90m/s
C. 1440km/hr
D. 90km/hr

42. The length of top of a table is 300cm. Using the scale 1cm represent 20cm, what is its drawing length?
A. 6cm
B. 7.5cm
C. 15cm
D. 60cm

43. The following pie chart shows the number of different types of animals in a farm. There are 160 animals altogether.

How many more goats than cows are there?
A. 40
B. 20
C. 60
D. 80

44. What is sum of edges and vertices of a cube?
A. 14
B. 20
C. 18
D. 26