



KISTE EXAMINATION PANEL

BENCHMARK {006}

STD 8 – MATHEMATICS

Time: 2 Hours

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 this questions booklet.

HOW TO USE THE ANSWER SHEET

4. Use only an ordinary pencil.
5. Make sure that you have written on the answer sheet.

YOUR INDEX NUMBER
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 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.
9. For each of the questions 1 - 90 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 line on the eclipse in which the letter you have chosen is written.

Example

In the question Paper:

37. What is the total value of digit 6 in the number 78.96?

- A. $\frac{6}{10}$
- B. 0.6
- C. 0.06
- D. Hundredths

The correct answer is C

On the answer sheet

25. [A] [B] [C] [D] **26.** [A] [B] [C] [D] **27.** [A] [B] [C] [D] **28.** [A] [B] [C] [D]

In the **Third** set, the box with the C printed in it is marked.

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

This Question Paper consists of 50 Printed Questions.

TURN OVER

1. What is 5640132.04 written in words?
 - A. Five million, six hundred and forty thousand, one hundred and thirty four
 - B. Fifty six million, four hundred and one thousand, one hundred and thirty two and four tenths
 - C. Five hundred and sixty four thousand, one hundred and thirty two and four hundredths
 - D. Five million, six hundred and forty thousand, one hundred and thirty two and four hundredths

2. How many times is the total value of digit 9 more than the total value of digit 6 in the number 397642?
 - A. 90,600
 - B. 90 000
 - C. 89 400
 - D. 150

3. Round off 9279847 to the nearest ten thousands?
 - A. 93 000 000
 - B. 92 798 000
 - C. 9 280 000
 - D. 92 700 000

4. Which of the following expressions is correct?
 - A. $\frac{5}{12} > 85\%$
 - B. $0.78 < 0.078$
 - C. $200 - 3 - 10.003 < 56.09 + 70.34$
 - D. $733 + 82 > 433 + 205$

5. Osuji bought the following items from a shop:
 - 3 tissue papers @ Sh. 16*
 - 2 skirts for Sh. 885*
 - $2\frac{1}{4}$ litres of milk @ Sh. 24 per 500ml*
 - 5000ml of cooking fat @ Sh. 85.50 per litre*
 - 2 sufurias for Sh. 445.*
 How much balance did he get if he paid using two-one thousand shilling notes?
 - A. Sh. 525.25
 - B. Sh. 74.50
 - C. Sh. 425.25
 - D. Sh. 371.25

6. What is the square of $6\frac{1}{4}$?
 - A. $36\frac{1}{16}$
 - B. $39\frac{1}{16}$
 - C. $12\frac{1}{2}$
 - D. $2\frac{1}{2}$

7. In a competition, 5 points are awarded for each game won and 2 points were deducted for each game lost. A pupil attempted 15 games and got 54 points. How many games did he win?
 - A. 3
 - B. 5
 - C. 10
 - D. 12

8. What is the value of:

$$\frac{5}{9} - \frac{4}{9} \text{ of } \frac{1}{8} (8\frac{3}{4} - 1\frac{1}{4})?$$
 - A. $\frac{15}{144}$
 - B. $\frac{7}{36}$

23. What is the next number in the sequence below: 1, 3, 8, 15, 27, _____?

- A. 38
- B. 41
- C. 32
- D. 31

24. Pauline spent $\frac{1}{4}$ of her salary on food, $\frac{1}{2}$ of the remainder on rent. She then spent $\frac{1}{3}$ of what was left on transport. If she finally had Sh. 10,000, what was her monthly salary?

- A. Sh. 20 000
- B. Sh. 25 000
- C. Sh. 40 000
- D. Sh. 80 000

25. A motorist travelling at an average speed of 60 km/hr took 5 hours to travel from Malaba to Nakuru. On his return journey, he increased his speed by 40 km/hr. What is his average speed for the whole journey?

- A. 80 km/hr
- B. 75 km/hr
- C. 50 km/hr
- D. $37\frac{1}{2}$ km/hr

26. What is the value of: $\frac{x(yz - w^2)}{2x - y^2}$
 $y = 3, w = 2$ and $z = 4$

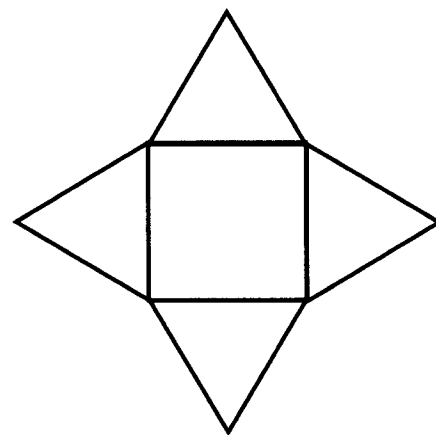
- A. 6
- B. 7
- C. 8
- D. 12

27. What is the value of:

$$(37685 \div 5 + 1235 - 976) \times 7?$$

- A. 7796
- B. 7537
- C. 54572
- D. 53018

28. Which one of the following solids can be formed from the net below?



- A. Square prism
- B. Triangular pyramid
- C. Square based pyramid
- D. Rectangular prism

29. The bells of three alarm clocks ring at intervals of 10 min, 15 min and 20 min respectively. They first rang together at 11.30 a.m. At what time would they ring together again for the second time?

- A. 2.30 a.m.
- B. 1.30 a.m.
- C. 3.30 a.m.
- D. 12.30 p.m.

30. Express $2\frac{1}{3}\%$ as a ratio in its simplest form

- A. 7:3
- B. 3:7
- C. 7:300
- D. 300:7

31. Six men working at the same rate can weed a farm in 16 days. How long would the work take if 2 more men are hired?

- A. 12
- B. 6
- C. 4
- D. 10

32. The table below shows the sizes of shoes worn by some pupils

Shoe size	4	5	6	$6\frac{1}{2}$	7	8
Quantity	12	11	15	9	6	2

What was the modal shoe size worn?

- A. 6
- B. 8
- C. 11
- D. 15

33. The ratio of boys to girls at Karapul Primary School is 7:4. If there are 84 more boys than girls, how many pupils are there in the school?

- A. 308
- B. 196
- C. 132
- D. 112

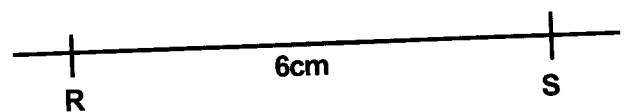
34. Arrange the following fractions in an ascending order: $\frac{4}{9}, \frac{2}{5}, \frac{3}{7}, \frac{1}{2}$

- A. $\frac{4}{9}, \frac{2}{5}, \frac{3}{7}, \frac{1}{2}$
- B. $\frac{2}{5}, \frac{3}{7}, \frac{4}{9}, \frac{1}{2}$
- C. $\frac{3}{7}, \frac{1}{2}, \frac{2}{5}, \frac{4}{9}$
- D. $\frac{1}{2}, \frac{4}{9}, \frac{2}{5}, \frac{3}{7}$

35. During an election, the winning candidate got 0.342 of the votes cast while the other two candidates got 0.34 and 0.262 votes respectively. There were 1120 spoilt votes. How many votes were cast altogether?

- A. 18880
- B. 20000
- C. 21120
- D. 30000

36. Using a line RS below, construct a rhombus RSTU in which angle SRU = 45° .



What is the length of the diagonal SU?

- A. 4.7cm
- B. 6cm
- C. 10.3cm
- D. 11cm

37. Which of the following sets of measurements can be used to construct a right-angled triangle?

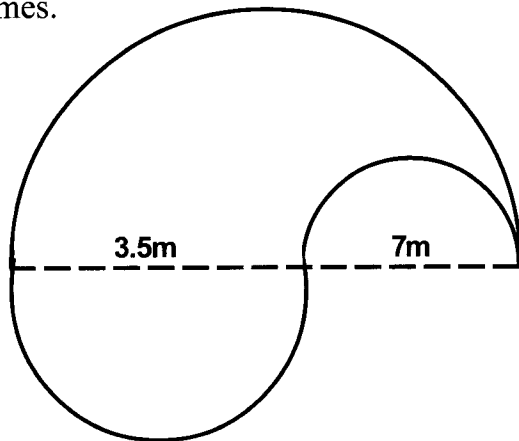
- A. 9cm, 15cm, 18cm
- B. 16cm, 24cm, 60cm
- C. 16cm, 24cm, 30cm
- D. 30cm, 40cm, 50cm

38. A saleslady earns a basic salary of Sh. 15000 plus a 10% commission on sales above Sh. 150 000. In one month she

earned a total of Sh. 25000. What was the value of goods sold in that month?

- A. Sh. 90 000
- B. Sh. 100 000
- C. Sh. 150 000
- D. Sh. 250 000

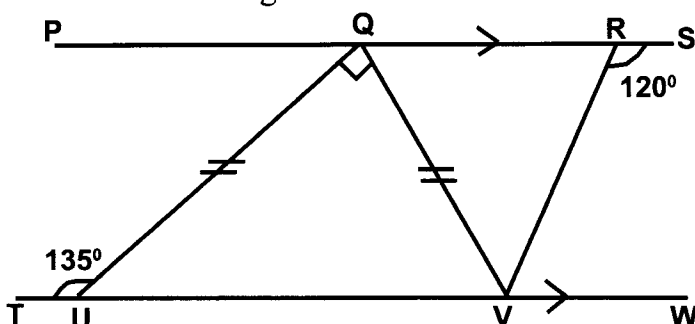
39. A spider went round the figure below five times.



What was the total distance covered?
(Take $\pi = \frac{22}{7}$)

- A. 33m
 - B. 165m
 - C. 184m
 - D. 330m
40. Njoroge deposited Sh. 40 000 in a bank which charged compound interest at the rate $2\frac{1}{2}\%$ pa. How much was in his account after 2 years as interest?
- A. Sh. 2020.50
 - B. Sh. 20 000
 - C. Sh. 42025
 - D. Sh. 60 000

41. In the diagram below, line PS and TW are parallel. Line QU = QV and angle TUQ = 135° while angle SRV = 120° .



What is the size of angle RQV?

- A. 45°
- B. 60°
- C. 75°
- D. 90°

42. The price of an item was reduced by Sh. 360. If this represented a 20% discount, what was the price of the item after the discount?

- A. Sh. 450
- B. Sh. 1800
- C. Sh. 1440
- D. Sh. 2160

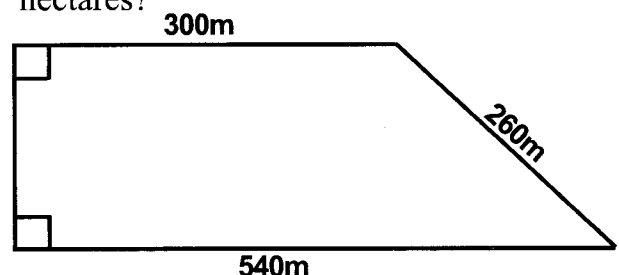
43. Ann has g tomatoes. Benta has three times as many tomatoes as Ann. They have a total of 100 tomatoes. Which of the following equations correctly represents the information above?

- A. $g + g + 3 = 300$
- B. $g + g + 3 = 100$
- C. $3g + g = 100$
- D. $3g + g = 300$

44. There are 1200 pupils at Achage Primary School. Each pupil takes two-200ml of milk for five days. How many decilitres of milk do they take in a week?

- A. 48 000
- B. 24 000
- C. 4 800
- D. 2 400

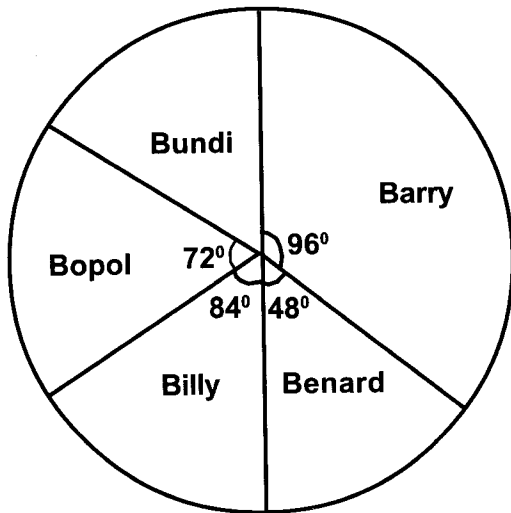
45. What is the area of the figure below in hectares?



- A. 4.2
- B. 42

- C. 420
D. 42000

46. The pie chart below shows the number of fruits bought by five people from a market.



If Barry bought 6 more fruits than Bopol, how many fruits did Bundi buy?

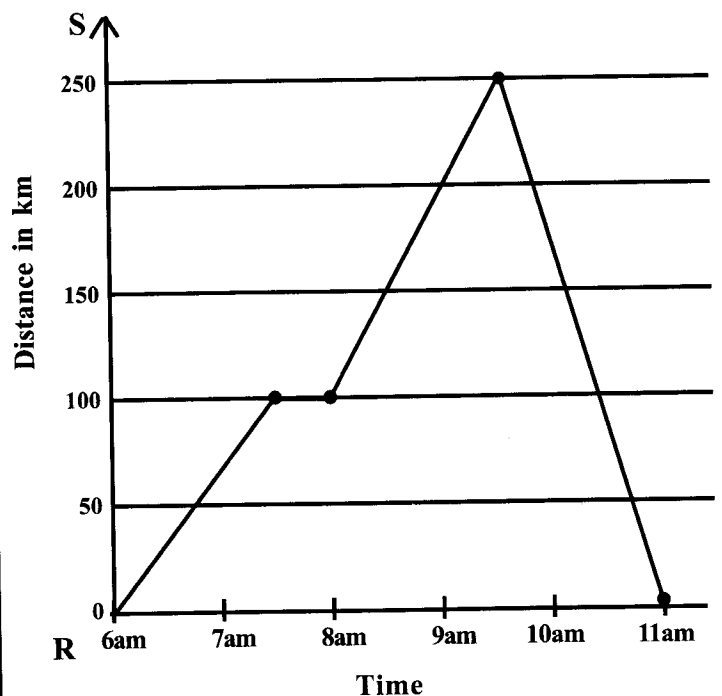
- A. 3
B. 12
C. 15
D. 27
47. The temperature of a liquid was 20°C below the freezing point. It was heated and the final temperature recorded was 75°C . What was the rise in temperature?
- A. 95°C
B. -95°C
C. 55°C
D. -55°C

48. The table below shows the bus fare in shillings between different towns

P				
200	Q			
250	100	R		
300	120	90	S	
350	150	130	70	T

Nevine travelled from town T to town Q via town R. How much more did she pay than travelling from T directly to Q?

- A. Sh. 230
B. Sh. 150
C. Sh. 80
D. Sh. 20
49. Which one of the following statements is incorrect about quadrilaterals?
- A. A square is a special rhombus
B. A rectangle has two pairs of parallel lines
C. A rectangle, a square and a rhombus are parallelograms
D. A rhombus is a special square
50. The graph below shows a motorist's journey from town R to town S and back



What was the motorist's average speed for the whole journey?

- A. 125 km/h
B. 100 km/h
C. $62\frac{1}{2}$ km/h
D. 50 km/hr

C. $\frac{5}{36}$

D. $\frac{2}{5}$

9. What is the value of w in the equation below?

$$4(w - 5) \frac{\quad}{6} - 2 = 0$$

A. 8

B. 7

C. 4

D. $1\frac{3}{4}$

10. Hellen bought two trays of eggs each at Sh. 180. On his way home, 10 eggs broke. If she sold each of the remaining eggs for Sh. 6 each, what was her percentage loss?

(A tray contains 30 eggs)

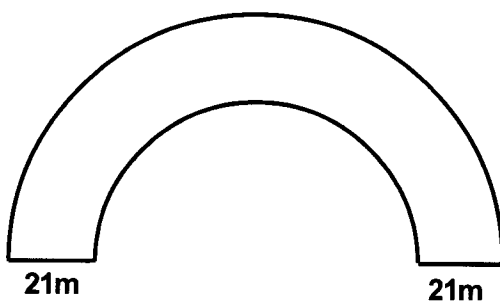
A. 10%

B. $16\frac{2}{3}\%$

C. 20%

D. 50%

11. The diagram below is of a flower garden.



What is its perimeter if the diameter of the bigger semi-circle is 77m? (Take $\pi = \frac{22}{7}$)

A. 394m

B. 352m

C. 218m

D. 176m

12. If the year 2019 January 15th was on

Saturday, which day was 1st April in the same year?

A. Monday

B. Thursday

C. Friday

D. Saturday

13. A meeting ended at 5.10 p.m after taking 4 hours 55 minutes. At what time had the meeting began in 24 hour clock system?

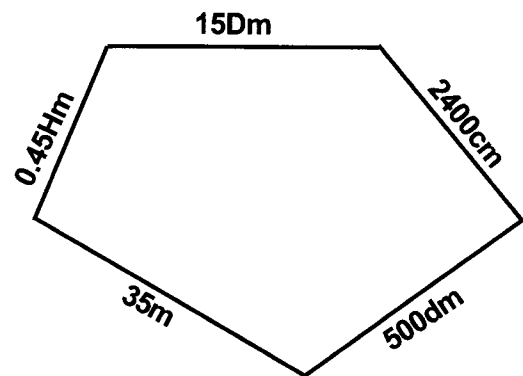
A. 12 15 hrs

B. 0015 hrs

C. 1005 hrs

D. 2215 hrs

14. What is twice the perimeter of the figure below in metres?



A. 608m

B. 508m

C. 304m

D. 254m

15. Simplify the algebraic expression below.

$$7(3x + 4y) - 2(2x + 7y)$$

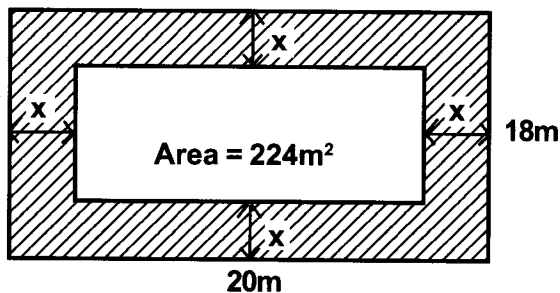
A. $17x + 42y$

B. $17x - 14y$

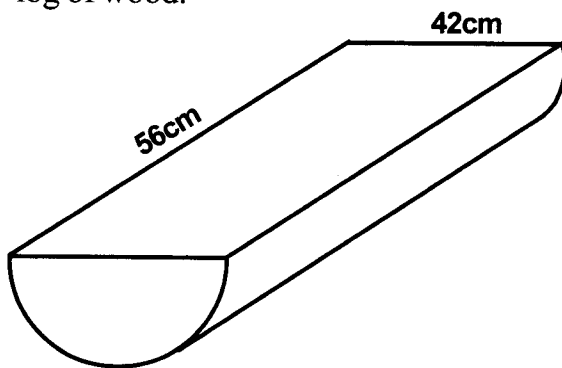
C. $17x + 14y$

D. $25x + 42y$

16. What is the length of the margin in the figure below if it has a uniform margin?



- A. 5m
 B. 3m
 C. 4m
 D. 2m
17. The diagram below shows a half cylindrical log of wood.



What is its surface area? (Take $\pi = \frac{22}{7}$)

- A. 2838cm^2
 B. 5082cm^2
 C. 7434cm^2
 D. 9660cm^2
18. What is the value of $\frac{0.22 \times 3.6}{0.24 \times 0.44}$?
- A. 3.3
 B. 7.05
 C. 7.5
 D. 3.03

19. Round off the sum of 42.821 and 0.9285 to

the nearest hundredths.

- A. 43.75
 B. 43.74
 C. 43.750
 D. 43.749
20. Construct triangle ABC in which $AB = 6\text{cm}$, $BC = 7\text{cm}$ and angle $ABC = 85^\circ$. Draw a circle to touch the edges of the triangle. What is the radius of the circle?
- A. 2cm
 B. 4cm
 C. 4.6cm
 D. 9.2cm
21. What is the sum of the square of 36 and the square root of 1764?
- A. 1296
 B. 1512
 C. 1404
 D. 1338
22. The marked price of a sewing machine is Sh. 12 000. The hire purchase price is 20% more than the marked price. Bernard bought the machine by paying a deposit of Sh. 3000 and the rest in monthly instalments of Sh. 1425 each. For how many months did he pay for the sewing machine?
- A. 12
 B. 9
 C. 8
 D. 7