COUNTY MOCK EXAMS-STD 8
2016

MATHEMATICS PAPER

SIAYA COUNTY MOCK
STANDARD EIGHT-YEAR 2016

MATHEMATICS

READ THESE INSTRUCTIONS CAREFULLY

Time: 2 hours

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 choosen your answer, mark it on the **ANSWER SHEET**, not in this question 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 line on the correct numbered ellipses (small oval shapes) 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 ellipses.

8. Keep the 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 line on the ellipse in which the letter you have chosen is written.

Example

15. John covered a distance of 36km within half an hour. What was his speed in m/s?
   A. 18
   B. 5
   C. 20
   D. 72

The correct answer is C (20)
On the answer sheet:

12. [A] [B] [C] [D]   **13.** [A] [B] [C] [D]   **14.** [A] [B] [C] [D]   **15.** [A] [B] [C] [D]

In the first set, a line is drawn within the letter C

11. Your dark line MUST be within the letter.

12. For each question, ONLY ONE ellipse is to be drawn a line in each set of four ellipses.

TURN OVER

1. Which one of the following numbers is eight million eight thousand eight hundred and eight and eight hundredths?
   A. 8008880.08   B. 8008808.08
   C. 8008808.008   D. 8080808.08

2. What is the value of : $\dfrac{24(72 - 69) - 6 \times 4}{12}$

   A. 22   B. 8   C. 4   D. 18

3. What is the number 24.895 rounded off to 2 decimal places?
   A. 24.900   B. 24.80   C. 24.90   D. 24.9

4. The fractions $^6/_7$, $^5/_8$, $^1/_2$, $^9/_{11}$ are to be arranged from the smallest to the largest. What is the correct orders?
   A. $^5/_8$, $^1/_2$, $^9/_{11}$, $^6/_7$ B. $^1/_2$, $^5/_8$, $^9/_{11}$, $^6/_7$
   C. $^6/_7$, $^9/_{11}$, $^5/_8$, $^1/_2$ D. $^1/_2$, $^5/_8$, $^6/_7$, $^9/_{11}$

5. What is total value of digit 8 in the product of 0.24 and 0.7 ?
   A. 0.08   B. 0.8   C. 0.080   D. 0.008
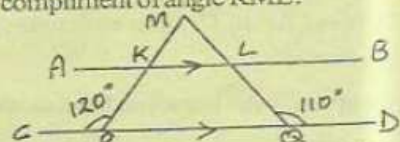
6. Brenda bought the following items:
   3kg of sugar @ sh 90
   2kg of rice for sh 160
   $2^1/_4$ kg of meat @ sh 300 per kg
   3 bars soap @ sh 90
   If she paid for the items using four, five hundred shillings notes. How much balance did she receive?
   A. sh 625   B. sh 785   C. sh 1375   D. sh 525

7. In the figure below, line AB and CD are parallel. Angle CPK = 120° and angle DQL = 110°. What is the compliment of angle KML?

   A. 130°
   B. 70°
   C. 50°
   D. 40°

8. How many times is the LCM of 24, 36 and 48 greater than its GCD?
   A. 144   B. 156   C. 132   D. 12

9. Three bells rings at an intervals of 12mins. 18 mins and 24 mins. If they rang together at 8.00a.m for the first time, at what time will they ring together for the third time?
   A. 10.24 a.m B. 9.24 a.m C. 11.36 a.m D. 10.12 a.m

10. What is the value of: $(1 - ^1/_3 \text{ of } ^3/_5) \times 2^2/_3 \div 1^1/_3$?
    A. $1^3/_5$ B. $^3/_{10}$ C. $1^1/_5$ D. $^2/_5$

11. Wekesa bought an item at sh 900 after getting a discount of 10%, how much would he have paid had been given a discount of 5%?
    A. sh 750   B. sh 1000 C. sh 950   D. sh 1050

12. A pupil arranged match sticks to form square as shown below. How many squares were formed altogether?

    A. 16
    B. 17
    C. 25
    D. 30

13. What is the next number in the pattern?
    1, 1, 4, 8, 9, 27, _____
    A. 16   B. 25   C. 36   D. 64

14. Tap A takes 8 mins to fill a tank with water while tap B takes 12 mins to empty the same tank. If the two taps are opened at the same time, how long will it take for the tank to be filled?
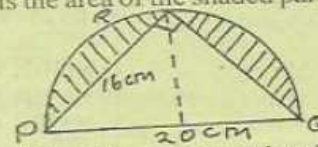   A. 36 mins   B. $4^4/_5$ mins C. 24 mins   D. 20 mins

15. The following are some properties of a quadrilaterals;
    (i) Has two sets of parallel line
    (ii) Diagonals are perpendicular bisector
    (iii) Opposite angles are equal
    (iv) All sides are equal
    The properties above describes _____
    A. rectangle B. square C. parallelogram D. rhombus

16. In the diagram below P, Q is the diameter of the semi circle PQ = 20cm PR is 16cm and angle PRQ is 90°. What is the area of the shaded part? Take $\pi = 3.14$

    A. 157 cm²
    B. 77 cm²
    C. 80 cm²
    D. 61 cm²

17. Which of the following expressions is the simplest form of : $\dfrac{4(3x + 2) - 2(3x - 2)}{2(2x + 3) + 2x}$

    A. $\dfrac{x + 2}{x + 1}$ B. $\dfrac{6x + 2}{3x + 3}$
    C. $\dfrac{3x + 2}{x + 1}$ D. $x + 2$

18. A lorry weighs 7 tonnes when loaded with bags of maize flour each weighing 90kg. If the empty lorry weighs 1.6tonnes, how many bags of maize flour are in the lorry?
    A. 108   B. 60   C. 72   D. 120

19. The ratio of boys to girls in a school is 3:5, if there is 80 more more girls than boys, how many pupils are there altogether?
    A. 120   B. 200   C. 320   D. 80

20. Construct a triangle XYZ in which XY = 6cm, XZ = 7cm angle YXZ = 75°. Draw a circle passing through the points XYZ. What is the radius of the circle?
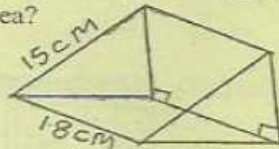   A. 3.8 cm   B. 8.2 cm   C. 4.1 cm   D. 4.4 cm

21. The pie chart below shows the number of animals in a farm. How many more sheep than cows are in the farm if there are 60 cows in the farm?

    A. 220
    B. 160
    C. 320
    D. 720

22. A watch gains 5 seconds in every hour, if it was set right at 8.00 a.m on Monday, what time will it show on Friday at 8.00 p.m?
A. 8.16 p.m   B. 8.12 p.m   C. 8.09 p.m   D. 8.24 p.m

23. What is the possible value of x in the given inequality?
$3x - 2 < 6x - 8$
A. 2   B. 3   C. 1   D. $1\frac{1}{3}$

24. The figure below shows a triangular prism. What is its surface area?

A. 756 cm²
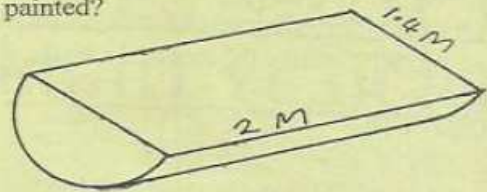B. 648 cm²
C. 1944 cm²
D. 972 cm²

25. On a map whose scale is 1:5000 a piece of land is represented by a rectangle measuring 5cm by 4cm. What is the actual size of this land in hectares?
A. 5 ha   B. 50   C. 500   D. 150

26. Kamau deposited sh 10,000 in a certain financial institution which paid simple interest per annum. After 2 years, the total amount of money was sh 11,600. At what rate percent did the money earn interest?
A. 5%   B. 16%   C. 4%   D. 8%

27. Which one of the following sets of measurements will form a right angled triangle when drawn?
A. 7cm, 24cm, 26 cm   B. 5cm, 24 cm, 25 cm
C. 6cm, 8 cm, 12 cm   D. 8cm, 15cm, 17 cm

28. A company employed 24 workers to complete a piece of work in 15 days, how many more days did it take them to complete the work if 6 workers did not turn up?
A. 5 days   B. 20 days   C. 4 days   D. 9 days

29. The table below shows the number of litres of milk sold in one week by Wangwe.

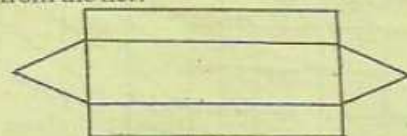| Days of Wk	Mon	Tue	Wed	Thu	Fri	Sat	Sun
No. of Ltr sold	20	24		18	22	23	21

The mean of milk sold in 7 days of a week was 22. How many litres of milk were sold on Wednesday?
A. 24   B. 22   C. 26   D. 28

30. A water tank is $\frac{1}{2}$ full of water, after drawing 30 litres of water from the tank it becomes $\frac{1}{5}$ full. How many litres of water does it hold when a third full?
A. 90 L   B. 150 L   C. 75 L   D. 225 L

31. Benson deposited sh 60,000 in a bank which paid compound interest at there rate of 10% p.a, but after one year, he withdrew sh. 26,000 from the account. How much was in the accunt at the end of second year?
A. sh 66,000   B. sh 72,600
C. sh 40,000   D. sh 44,000

32. The diagram below is a water rough 2m long with the semi-circular cross section of diamter 1.4m. The external surface of a trough was painted. What area was painted?

A. 11.88 m²   B. 5.94 m²   C. 8.74 m²   D. 5.17 m²

33. A sales lady earns a basic salary of 3500/= she is also paid a commission of 5% on goods above 20,000. In a one month she earned a total of 6500. What was her monthly sale?
A. sh 60000   B. sh 30 000
C. sh 80 000   D. sh 100 000

34. The charges for sending a telegram were 8/= for the first 10 words or less. Each extra word is charged 80 cents. A tax of 15% of the total is also charged and payment rounded off to the nearest 5 cents. How much did Nekesa pay to send the following telegram?
MARTIN NYONGESA BOX 147 KITALE COME HOME MOTHER SICK ADMITTED BUNGOMA GENERAL HOSPITAL NEKESA
A. sh 13.80   B. sh 13.85   C. sh 13.00   D. sh 14.00

35. What is the value of $62\frac{1}{2}\%$ expressed as a ratio?
A. 5:4   B. 5:8   C. 8:5   D. 125:2

36. Walubengo spend $\frac{1}{4}$ of his money on rent, $\frac{2}{3}$ of the remainder on food, $\frac{1}{8}$ of the remainder on clothes and saves the rest. if his savings is sh 1575. How much does he earn?
A. sh 60 000   B. sh 7200
C. sh 1800   D. sh 15000

37. The figure below shows a net of a solid, what is the product of the edges and vertices on the solid formed from the net?

A. 54
B. 45
C. 30
D. 15

38. Construct a parallelgram PQRS in which PQ = 7cm QR = 6cm and angle SPQ = 120º. Measure the diagonal QS.
A. 11.5 cm   B. 6.4 cm   C. 11.2 cm   D. 6.6 cm

39. The marked price of a T.V set is sh 50,000. The hire purchase price is 20% more than the marked price. Peter bought it on hire purchase by paying a deposit and 10 monthly instalments of 3000/= each. How much was his deposit?
A. sh 60,000   B. sh 10,000
C. sh 110,000   D. sh 30,000

40. What is the value of: $\dfrac{6.2 - 0.8 \div 0.25 + 2.4}{0.6 \times 0.1}$

    A. 5.4   B. 0.9   C. 9   D. 90

41. A son is x years old now. His father is 5 times as old as his son. What will be the sum of their ages in 10 years time?

    A. 6x + 10   B. 10x + 6

    C. 2(3x + 10)   D. 6x + 15

42. In the year 2004, Jan 10th was on Monday. When was June 10th the same year?

    A. Saturday   B. Friday

    C. Thursday   D. Monday

43. Electricity was installed from Malakisi to Chwele a distance of 15km. Electricity poles were placed 50m apart. How many poles were used?
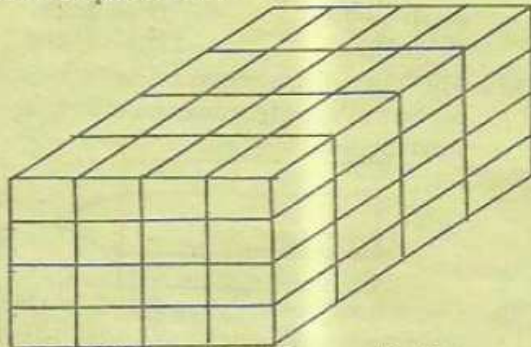
    A. 300   B. 301   C. 600   D. 602

44. A shopkeeper bought 4 trays of eggs for sh 1000, twenty eggs broke during transportation and sold the remaining eggs at a profit of 20%, if a tray holds 30 eggs. What was the selling price of each egg?

    . sh 9   B. sh 8   C. sh 10   D. sh 12

45. John started his journey from Mombasa to Busia. After 5h 45 mins drive he rested in Nairobi for 55 minutes. it then took him 2hr 40 min to arrive in Busia at 9.25 p.m. At what time had he started the journey?

    A. 12.05 a.m   B. 5.50 p.m

    C. 6.45 p.m   D. 12.05 p.m

46. The figure below represents a stack of cubes. The surface of the stack was painted. How many cubes did not have a paint at all?
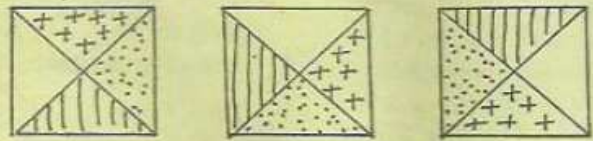
    A. 16   B. 8   C. 10   D. 48

47. What is the area of a rhombus whose diagonals are 24cm and 32 cm?

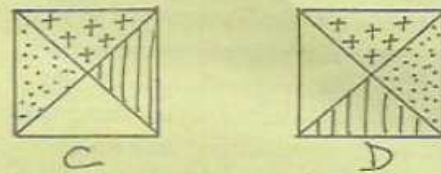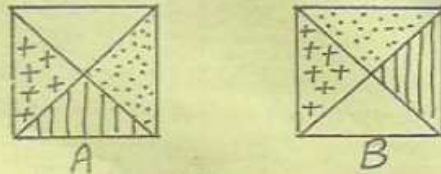   A. 768 cm² B. 112cm² C. 384cm² D. 80 cm²

48. A meeting was attended by men, women and children. 0.4 of those who attended were men, 0.25 were women and the rest were children. If the number of men who attended were 80, how many more children than women attended the meeting?
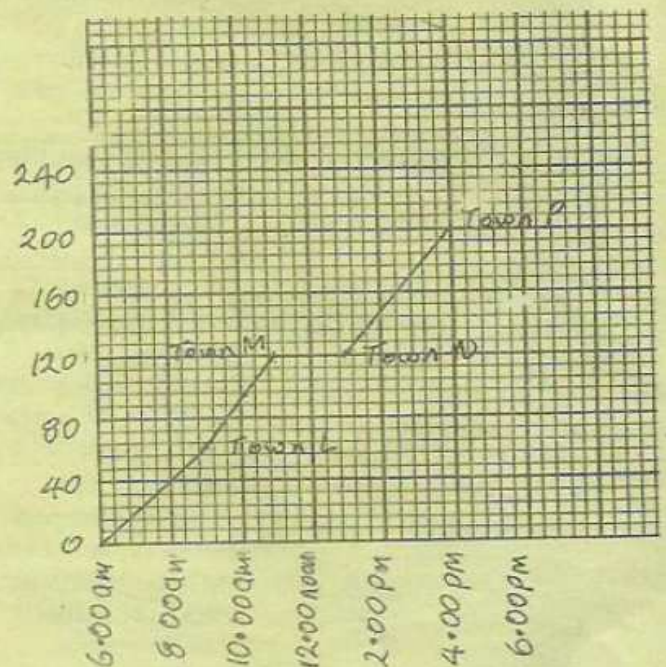
    A. 200   B. 70   C. 20   D. 50

49. The figures below represent a pattern.

Which one of the following is the next shape?

    A   B

    C   D

50. The graph below shows a journey by bus from town K to town P.

Which town is the speed of the bus the least?

    A. KL   B. LM   C. MN   D. NP