

# BUKEDDE MOCK EXAMINATION 2024 MATHEMATICS

*Time Allowed: 2 hours 30 minutes*

|           |           |  |  |  |  |  |             |  |  |
|-----------|-----------|--|--|--|--|--|-------------|--|--|
| Index No. | Random No |  |  |  |  |  | Personal No |  |  |
|           |           |  |  |  |  |  |             |  |  |

Candidate's Name.....

Candidate's Signature .....

School Random Number .....

District Random Number .....

Read the following Instructions carefully:

1. The paper has two sections; A and B.  
Section A has 20 questions and section B has 12 questions.
2. Answer all questions. All answers to both Section A and B must be written in the spaces provided,
3. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.
4. Unnecessary changes in your work may lead to loss of marks.
5. All handwriting that cannot be easily read may lead to loss of marks.

| SCORES |       |
|--------|-------|
| Qn No  | Marks |
| 1 - 20 |       |
| 21     |       |
| 22     |       |
| 23     |       |
| 24     |       |
| 25     |       |
| 26     |       |
| 27     |       |
| 28     |       |
| 29     |       |
| 30     |       |
| 31     |       |
| 32     |       |

## SECTION A

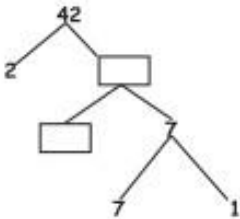
1. Work out:  $111 + 12$

2. Write "eight hundred thousand ten" in figures.

3. Given that set  $K = \{1, 2, 3, 5, 7, 8\}$ , find  $n(K)$

4. Monica has  $\frac{3}{4}$  loaf of bread. If she gives away  $\frac{1}{7}$  of the bread, how much bread does she remain with?

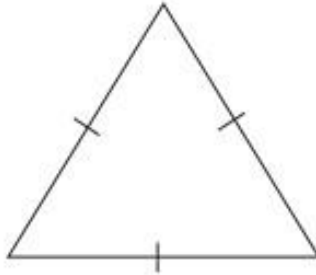
5. A certain number was factorised as shown. Find the missing numbers in the boxes.



6. Solve:  $\frac{5y}{2} - 3 = 22$

7. Change  $143_{\text{five}}$  to base ten.

8. How many lines of folding symmetry has the figure below?



9. The bearing of K from P is  $045^\circ$ . Using a sketch diagram, find the bearing of P from K.

10. Round off 78.76 to the nearest tenth.

11. Work out:  $\frac{3}{4} - \frac{5}{6} + \frac{5}{8}$

12. Work out the area of circular piece of land of diameter 140m

13. Express 216km/hr in metres per second.

14. By selling a goat at sh 150,000, a trader loses sh.12,500. What was the buying price of the goat?

15. Tom went to bed at 9:30pm and woke up after 5 hours. At what time did he wake up? (Express your answer in 24-hour clock system.)

16. Express 0.1333... as a fraction.

18. If  $q = -5$  and  $m = 7$  find the value of  $q^2 + 2m$

20. Find the number of trees that can be planted at an interval of 4 metres along a straight path of 0.32km?

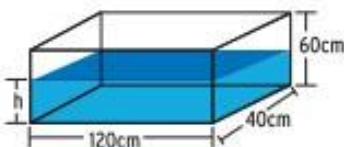
17. Construct an angle of  $75^\circ$  using a ruler and a pair of compasses only

19. While driving at a speed of 120km per hour, Okot took 1 hour 20 minutes to move from town A to town B. How far is B from A?

## SECTION B

21.a) Using ruler and a pair of compasses only, construct a triangle ABC where  $BC = 7.5\text{cm}$ , angle  $ABC = 75^\circ$ , angle  $ACB = 45^\circ$ .

23. A rectangular tank below was filled with water to the level shown.



a) If the volume of water in the tank is 192 litres, find the height(h) of the water.

24. Kalekezi the rally driver left town K for town M at 7:00am driving at 40km per hour. Musa also a senior driver left town M at 7:00 for town K driving at 50km per hour. The two drivers met after 2 hours. How far is town K from town M

a) Measure side AC

b) Measure angle BAC.

22. a) Write the number in figures: "forty seven thousand, seventy six" in words.

b) How much water is needed to fill the tank?

25. a) Express  $12\frac{1}{2}\%$  as a fraction in its simplest form

b) What is DXXIV in the Hindu Arabic numerals.

b) Terry bought a radio at sh.60,000 and sold it at sh.63,000. Calculate the percentage profit made.

26. A rectangular sheet below was curved to make a cylindrical Container.



a) Calculate the volume of the cylinder obtained.

b) Find the capacity of the cylinder.

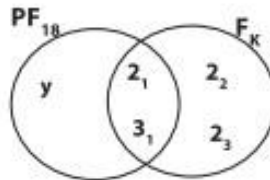
27. Two complementary angles are in the ratio of 2:3.

a) Find these angles.

b) Work out the difference in their size.

28. Muchope had sh.900,000 which he exchanged for US dollars. He was given US dollars 240. Find the selling rate of a dollar in the forex bureau that Muchope visited.

29. Two numbers were prime factorised as shown below:



a) Find the value of: i) y

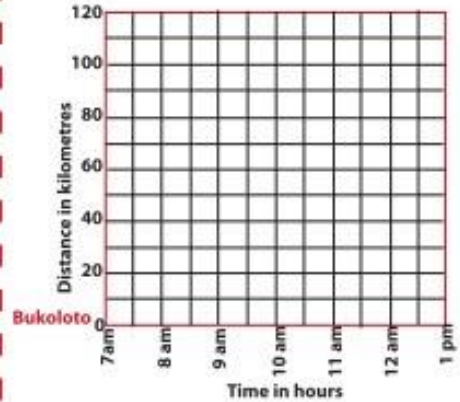
ii) k

30. a) Work out:  $-12 - -17$

b) Find the solution set for  $-4 \leq h < 6$

31. Lubanga left Bukoloto at 7:00 am and covered 60km in 1 hour to Ganda. He rested there for 30 minutes and covered the next 60km to Kibuye in an hour. He rested at Kibuye for half an hour. He returned to Bukoloto via the same road driving at 120km per hour.

(a) Show Lubanga's journey on the graph below.



(b) Indicate Ganda and Kibuye on the graph.

(c) Calculate Lubanga's average speed for the whole journey.

32. The average age of four people is 50 years. If the fourth person is removed, the average age becomes 40. How old is the fourth person?

b) The table below is a summary of how pupils in Makada's class performed in Maths. What was the modal mark?

|    |    |    |    |    |
|----|----|----|----|----|
| 68 | 72 | 85 | 90 | 96 |
| 2  | 5  | 3  | 2  | 1  |

b) Calculate the mean score?