



PRAISE EDUCATION SERVICES

MANAGEMENT SET ONE

2023

MATHEMATICS

Time allowed: 2 hours 30 minutes

Index No.	EMIS No.					Personal No.		

Candidate's name:

Candidate's signature:

School name:

District name:

Read the following instructions carefully:

1. This paper has two sections **A** and **B**.
2. Section **A** has **20 questions** and Section **B** has **12 questions**. This paper has **16 printed pages** altogether.
3. Answer **all** questions. All the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work written in pencil will **NOT** be marked except drawings and diagrams.
5. Unnecessary **changes** in your work and handwriting that cannot be easily read may lead to **loss of marks**.
6. Do not fill anything in the table indicated:
"For Examiners' use only" and the boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXR'S No.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

SECTION A : 40 MARKS

Answer all questions in this section

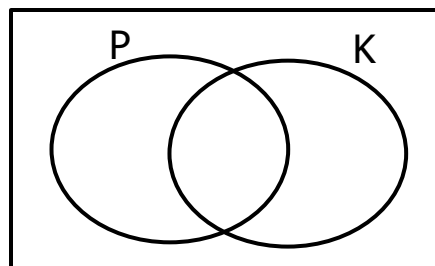
Questions 1 to 20 carry two marks each

1. Work out: $2.9 - 0.9$

2. Find the next number in the sequence:
1, 4, 10, 20, 35,

3. Express 13_{ten} to binary

4. On the Venn diagram below, shade $P \cup K$



5. If $k = -2$ and $b = 3$, find $\frac{k^2b}{k}$

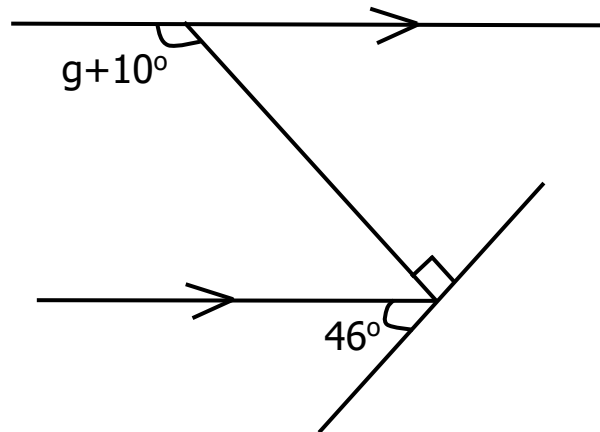


6. The temperature on Mt. Elgon was -7°C at midnight. By midday, the temperature rose to 12°C . What was the raise in temperature?

7. Express 60 metres into kilometres.

8. Work out: $2436 \div 6$

9. Study the figure and use it to answer the question that follows.



Find the value of g in degrees.

10. Kasiita borrowed sh. 40,000 from a village SACCO which charges a simple interest of $2\frac{1}{2}\%$ per month. How much money will Kasiita pay back after a period of $1\frac{1}{2}$ years?



11. Solve: $k - 7 = 4k + 2$

12. A basket contains 15 mangoes. 8 of the mangoes are ripe. If a mango is picked at random from the basket, what is the probability that it is not a ripe one?

13. A tank was $\frac{3}{4}$ full of water. $\frac{2}{9}$ of the water in the tank was used.
Find the fraction of water that remained in the tank.

14. Express 12:45p.m in 12-hour clock system.

15. Find the greatest common factor (GCF) of 18 and 24.



16. Find the diameter of a semicircle whose perimeter is 29cm.
(Take $\pi = \frac{22}{7}$)

17. Work out: $(29 \times 256) + (29 \times 744)$

18. Using a ruler, a pencil and a pair of compasses only, construct an angle of 135° .

19. The cost of 6 books is sh. 7400. Find the cost of $1\frac{1}{2}$ dozens of similar books.
20. A speed boat left Island C for Island D at an average speed of 72 kilometres per hour. If it took 45 minutes to cover the distance, how far is C from D?



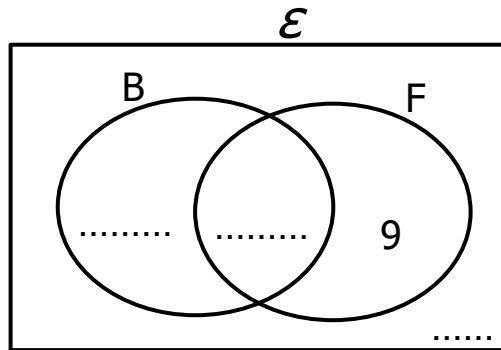
SECTION B : 60 MARKS

Answer all questions in this section

Marks for each question are indicated in brackets

21. In a class, $4y$ pupils like beef (B) only. 9 like fish (F) only and y like neither of the two dishes. The number of pupils who like fish is thrice the number of pupils who like neither of the two dishes.

- a) Use the given information to complete the Venn diagram below. (03 marks)



- b) Given that the 19 pupils like beef, find the total number of pupils in the school. (02 marks)

22. a) Simplify: $\frac{4.8}{0.36 \div 0.9}$ (03 marks)

- b) Express $0.1666 \dots$ as a simplified common fraction. (02 marks)



23. Arnold went shopping with sh. 12,000 and bought the following items.

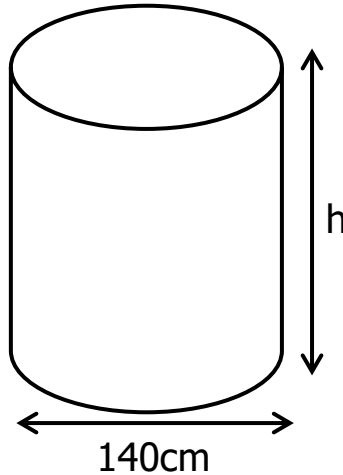
2kg of rice at sh. 3500 per kilogram

750g of salt at sh. 2,000 per kg

Some tomatoes at sh. 500 for every 6 tomatoes.

If he remained with sh. 2400 after being offered a discount of 4%, find the number of tomatoes Arnold bought (06 marks)

24. The capacity of the metallic cylindrical tank below is 1540 litres. It was cut open to form a rectangular sheet. Use it to answer questions that follow.



a) Solve for h (03 marks)

b) How many circular discs of diameter 25cm can be cut from the rectangular sheet formed? (03 marks)

25. A certain number was expanded to give:

$$(2 \times 10^4) + (7 \times 10^2) + (6 \times 10^1) + (9 \times 10^0)$$

a) Draw an abacus to show the number that was expanded.
(02 marks)

b) Work out the difference between the value of 7 and the value of 9 in the number above.
(02 marks)

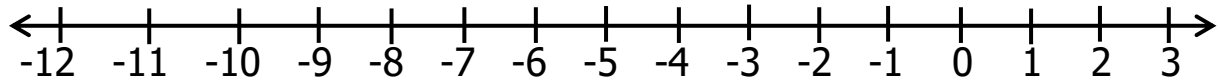
26. Annet, Alex and Amos shared some money in the ratio of 2:5:7 respectively. If Annet and Amos got sh. 27,000 altogether, how much money did each get?
(04 marks)



27. a) Using a ruler, a pencil and a pair of compasses only, construct a parallelogram ABCD such that $BC = 6\text{cm}$, $\angle BCD = 120^\circ$ and diagonal $BD = 9\text{cm}$. (05 marks)

- b) Measure line AB in cm. (01 marks)

28. a) Use the number line below to work out: $-3 - -8$ (02 marks)



- b) Lubwama was born in 42BC and died in 9AD. How old was he when he died? (02 marks)



29. A man left town A at 10:30a.m driving at an average speed of 60km/h for 2 hours 20 minutes to town B. He rested for 15 minutes at B. At what speed must he drive in order to reach town C at 2:50p.m if C is 315 kilometres away from A? (05 marks)





30. An insect moved $2\frac{1}{2}$ times around the figure below and covered 70cm. Calculate the area of the figure. (05 marks)



31. The cost of an apple is sh. 500 less than the cost of a pawpaw and a mango costs four fifths as much as an apple. A girl bought 2 mangoes and 3 apples at sh. 4600. Find the cost of a pawpaw. (04 marks)



32. The graph below shows the number of Unique Mathematics textbooks bought by pupils in different classes at SBK Junior School. Use it to answer questions that follow.

Class	Textbooks
P.4	
P.5	
P.6	
P.7	

- a) If P.4 pupils bought 51 textbooks less than P.6 pupils, find the total number of textbooks bought by pupils in the four classes. (04 marks)
- b) Express as a percentage of the total, the number of textbooks bought by P.7 pupils. (02 marks)

END

