



# CENTRAL EDUCATIONAL CONSULT

## PRIMARY SEVEN MATHEMATICS

### PRE-PLT SET I (ONE) 2024

Time Allowed: 2 Hours 30 Minutes

Random No.						Personal No.		

Candidate's Name: \_\_\_\_\_

Candidate's Signature: \_\_\_\_\_

District ID No. 

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Read the following instructions carefully.

1. This paper has two sections: **A** and **B**. Section **A** has **20** questions (**40marks**) and section **B** has **12** questions (**60marks**).
2. All the working for both sections **A** and **B** must be shown in the spaces provided.
3. All working must be done using a blue or black ball point pen or ink. Any work done in pencil other than graphs and diagrams will not be marked.
4. **No calculators** are allowed in the examination room.
5. Unnecessary changes of work may lead to loss of marks.
6. Any handwriting that cannot be easily read may lead to **loss of marks**.
7. Do not fill anything in the boxes indicated: **"For Examiner's Use Only"** and those inside the question paper.

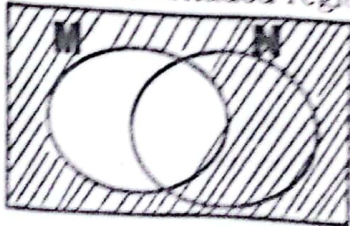
"FOR EXAMINER'S USE ONLY"		
Qn. No.	MARKS	EXR'S NO.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

PREPARED BY,



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# SECTION A. (40 MARKS)

1.	Workout: $405 - 289$	6.	Express $0.1777777 \dots$ as a <u>continued</u> fraction.
2.	Write <b>490.092</b> in words	7.	Preckous slept at <b>10.15p.m</b> and walked up after <b>2 hours and 40 minutes</b> . What time did she wake up in <b>24-hour clock system</b> ?
3.	Simplify: $7mn - 7m - n - mn + m$	8.	The temperature in Nevada at <b>7.00a.m</b> was <b>6°C</b> . It increased to <b>40°C</b> . What was the increase in temperature?
4.	Give $D = \{4, 0, 5, 8\}$ . List all proper subsets of $D$ .	9.	Use tallies to represent the quotient of <b>36</b> and <b>3</b> .
5.	Find the square root of the next number in the sequence.  <b>36, 49, 64, 81, _____</b>  <div style="border: 1px solid black; width: 40px; height: 40px; margin-left: auto; margin-right: auto;"></div>	10.	Study the diagram below and describe the shaded region.   <div style="border: 1px solid black; width: 40px; height: 40px; margin-left: auto; margin-right: auto;"></div>



11	A sachet of gorillos weighed <b>12mg</b> . What is its mass in decagrams?	15	Using a ruler, pencil and a pair of compasses only construct the complementary angle of <b>75°</b> .
12	If today is a <b>Tuesday</b> , what day of the week will it be <b>48days</b> after tomorrow?	16	In a <b>P.7</b> class, the ratio of girls to boys is <b>5:3</b> . If there <b>24 boys</b> . Find the number of girls in <b>P.7</b> .
13	Find the sum of <b>679</b> and the smallest <b>3</b> digit number formed using digits <b>6, 0, 8</b>	17	Express <b>0.00643</b> in standard form.
14	<b>Raymond</b> exercises <b>12 days</b> and <b>Moses</b> every <b>8 days</b> . <b>Raymond</b> and <b>Moses</b> both exercised today. How many days will it be until they exercise together again?	18	A canteen attendant bought <b>2 dozens</b> of rulers at <b>sh. 24,000</b> . She sold each ruler at <b>sh. 1500</b> . How much profit did she make?

<p><b>19</b> A car covered a distance of <b>880cm</b> in <b>four</b> revolutions. Calculate the diameter of the car wheel. (take <math>\pi \frac{22}{7}</math>)</p>	<p><b>20</b> In a basket of apples, <b>12%</b> of them are rotten and <b>66</b> are in good condition. Find the total number of apples in the basket.</p>
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**SECTION B. (60MARKS)**

<p><b>21</b> At a graduation party, <b>32</b> people like Rice only, <math>y</math> people liked both rice (<b>R</b>) and matooke (<b>M</b>), <b>(2y-10)</b> people like matooke but not rice, while <b>(y-2)</b> do not like any of the two foods.  <b>(a)</b> Use the information above to complete the venn diagram below.  <b>(03marks)</b></p> <div data-bbox="363 1081 831 1328"> <p align="center"><math>n(\Sigma)</math></p> </div>	<p><b>(b)</b> Given that those who like Matooke only are more than those who like Rice only by <b>33</b>, find the value of <math>y</math>.  <b>(02marks)</b></p>
<p><b>22</b> A trader borrowed money from centenary at an interest rate of <b>10%</b> per annum for <b>2years</b>.  <b>(a)</b> How much did he borrow if he paid an interest of <b>sh. 84,000</b>?  <b>(02marks)</b></p>	<p><b>(b)</b> Calculate the amount he paid after <b>2</b> years.  <b>(02marks)</b></p>

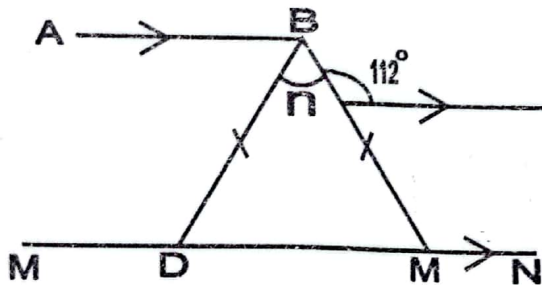
23

(a) Solve for  $y$ :  $4(2y + 3) = 31 - 3(y - 1)$   
(03marks)

(b) At Rania's 12<sup>th</sup> birthday her father was **50 years** old. After how many years will the father be thrice as old as the daughter? (03marks)

24

Study the diagram below and use the information given to answer the questions that follow.



(a) Find the value of  $n$ . (02marks)

(b) Find the size of angle marked;  
(i)  $\angle BDM$  (02marks)

(ii)  $\frac{1}{4} \angle BDM$  (02marks)



25 (a) Convert  $18\text{km/h}$  to metres per second. (02marks)

(b) A bus driver covered a distance of  $200\text{km}$  at an average speed of  $80\text{km/hr}$ . If he reached her destination at  $4.05\text{p.m.}$ , at what time did he start the journey? (03marks)

26 The table shows the rate at which Bamuda forex bureau buys and sells Unites States dollars and Kenya shillings in Uganda shillings. Use it to answer the questions that follow.

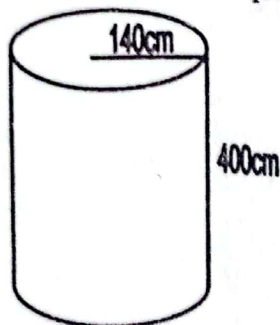
Currency	Buying rate	Selling rate
1 US dollar	Ug sh. 3500	Ug sh. 3600
1 K sh.	Ug sh. 30	Ug sh. 32

(a) Abigail had **K sh. 18250** and bought a fridge using US dollars. How many US dollars did she pay for the fridge?

(03marks)

(b) If Jason had **US dollars 400** and bought a home theatre in Kenya shillings. What was the cost of the home theatre in Kenya shillings? (03marks)

27 Mr. Katiko has a juice tank at his factory as shown below. Study it carefully and use it to answer questions that follow.



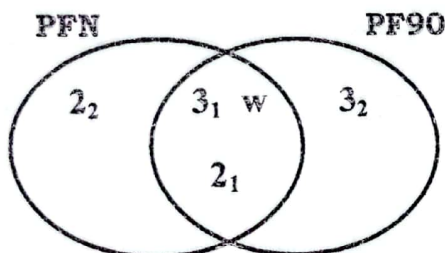
(a) Calculate the capacity of the tank when it is full of juice? (03marks)

(b) If juice from the tank is packed in **20litre** jerrycans for selling, find the number of jerrycans which were obtained from the juice tank? (02marks)

28 (a) Convert  $223_{\text{four}}$  to base **six**. (03marks)

(b) Workout  $123_{\text{five}} \times 23_{\text{five}}$  (02marks)

29 The venn diagram below shows the prime factors of **N** and **90**. (05marks)



(a) Find the value of **W**. (02marks)

(b) Find the **HCF** of **N** and **90**. (03marks)

30 Candidates sat fo a mathematics test and performed as shown on the table below.

Number of candidates	////	/	//	///
Marks scored	60	90	40	m

(a) How many candidates sat for the test?

(01mark)

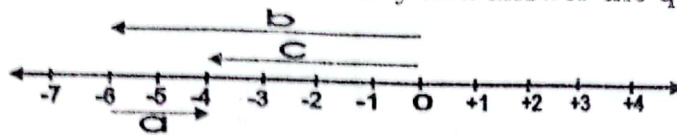
(b) If the mean mark was 50, find the value of  $m$ .

(02marks)

(c) How many candidates scored above the average mark?

(01mark)

31 Below is a number line, study it carefully and answer the questions that follow.



(a) Name the integer represented by arrow.

(01mark each)

(i) b \_\_\_\_\_ (ii) a \_\_\_\_\_ (iii) c \_\_\_\_\_

(b) Write down the mathematical sentence shown on the given number line.

(01mark)

31 (a) Using a ruler, a pencil and a pair of compasses only, construct a rectangle EFGH where line  $EF=6.5\text{cm}$ , and line  $FG=4.5\text{cm}$ .

(04marks)

(b) Join E to G and measure angle GEH.

(01mark)

-END-