



# NALUNGA ZONAL EXAMINATIONS BOARD

2024-25 ZONAL MOCK EXAMINATION FOR STANDARD 8

**MATHEMATICS**

(100 marks)

**Subject Number: P163**

**Time Allowed: 2 hours**

**8:00 – 10:00 am**

**Name of Candidate:** \_\_\_\_\_

(Surname First)

**Name of School** : \_\_\_\_\_

## SECTION A (40 MARKS)

- What is 49 in roman numerals  
A. IL  
B. LIX  
C. XLIX  
D. LVIII
- Solve the equation  $2t + 1 = 11 + t$   
A. 6  
B. 10  
C. 11  
D. 12
- Simplify the following  $\frac{3}{7} \div \frac{5}{6} + \frac{2}{5}$   
A.  $\frac{4}{35}$   
B.  $\frac{32}{35}$   
C.  $\frac{53}{70}$   
D.  $\frac{67}{70}$
- A trader bought beans worth K7200 and sold them for K7920. What profit percent did the trader make?  
A. 10%  
B. 11%  
C. 90%  
D. 110%
- Express  $\frac{1}{3}$  as a decimal number, correct to 3 decimal places  
A. 0.3  
B. 0.33  
C. 0.333  
D. 0.3333
- The circumference of the base of basin is 176 CM. Calculate its radius (Take  $\pi = \frac{22}{7}$ )

A. 16CM

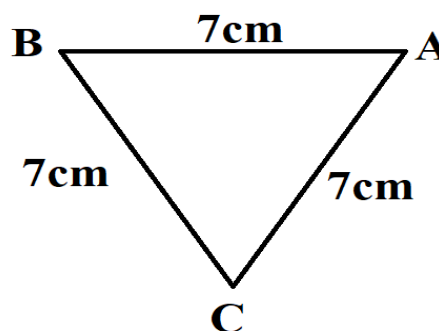
B. 28CM

C. 56CM

D. 112CM

- King take 2 hours and 30 minutes to walk a distance of 15KM. Calculate Kings speed in metres per minutes  
A. 6 m / min  
B. 10 m / min  
C. 100 m / min  
D. 125m / min

Figure 1 shows a triangle ABC. Use it to answer ques...



- What name is given to the type of triangle ABC?  
A. Isosceles  
B. Scalene  
C. Right angle  
D. Equilateral
- Calculate the total cost of the following items:  
10 tomatoes at 2 for k50  
3 books for k500  
A. K550  
B. 750  
C. 1600  
D. 1750

10. What is the simplest form of the following ratio  $\frac{1}{8}$  :

$$\frac{1}{4}$$

- A. 1:8
  - B. 1:4
  - C. 1:2
  - D. 2:1
11. What is the simple interest on K55,000 for 2 years at 10% per annum?
- A. K11,000
  - B. K5700
  - C. K5500
  - D. K1100
12. What is 17kg in grams?
- A. 1700g
  - B. 17000g
  - C. 170,000g
  - D. 170g
13. A doctor worked at Tachira central Hospital for 3 decades. How many years did the doctor work?
- A. 10 years
  - B. 25 years
  - C. 30 years
  - D. 40 years
14. Nine million, ninety-nine thousand and one in figure is
- A. 9099001
  - B. 9099100
  - C. 9990001
  - D. 9991000

**Table 1 shows property and premium paid per month for the property in certain year. Use it to answer Question 15**

Property	Premium per month (k)
House	9000
Car	4000

15. If Zawanda insured two cars and one hose for one month only, how much did he pay all together?
- A. K8,000
  - B. K13,000
  - C. K17,000
  - D. K22,000

16. Which digit has a place value of "tenth" in the number 605.3278?

- A. 0
  - B. 2
  - C. 3
  - D. 5
17. What is the 4th number in the following number pattern **36, 39, 42, \_\_\_\_**?
- A. 40
  - B. 41
  - C. 44
  - D. 45

18. Which one of the following is prime factor of 64?

- A. 2
  - B. 4
  - C. 8
  - D. 32
19. What term is given when selling price is less than a cost price?
- A. Discount
  - B. Loss
  - C. Mariced price
  - D. Profit

20. Which one of the following is the HCF of 8, 32 and 72?

- A. 8
- B. 16
- C. 32
- D. 64

### SECTION B (60 MARKS)

**Answer all question in this Section. Write your answer in the space provided. Show your working**

21. (a). Simplify  $0.24 - 0.04 \times 0.35 + 0.14$

(b). Solve the following inequality  $3m + 8 \geq 57 - 4m$

**(3 Marks)**

**22.** (a). Subtract the LCM of 50 and 75 from 286

**(4 Marks)**

(b). Given that the average of **6,10,8** and **y** is **9**, find the value of **y**

**(5 Marks)**

**23.** (a). Atomic measuring 6M long, 3M wide and 4M deep is half full of water

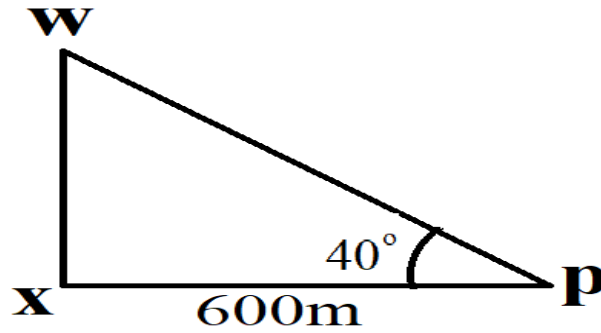
(i). Calculate the volume of the tanks

**(2 Marks)**

(ii). Find the capacity of water in the tank in litres

**(3 Marks)**

24. Figure 2 shows a sketch of a triangle garden  $PWX$  in which  $PX = 600\text{m}$ , angle  $WXP = 90^\circ$  and angle  $WPX = 40^\circ$



- (a). Using a protractor, a ruler and a scale of 1cm to represent 100m, draw the figure accurately

(4 Marks)

- (b). Find the actual length of  $WP$

(3 Marks)

25. (a). Pofera bought a bicycle at K73,5000.00 and sold it at K58,000.00. Calculate the loss that she made

(b). Calculate the compound interest on K28,000 for 2 years at 10% per annum

**(5 Marks)**

26. Model 421032 on the abacus

**(5 Marks)**

27. Table 2 shows rates of tax on salaries per month for a certain year

Salary per month	Rate of tax
First K9000	0% (tax free)
Next K3000	15%
Over K12,000	30%

Use the information in the table 2 to calculate the monthly tax a worker pays on a monthly salary off K18,500

**(5 Marks)**

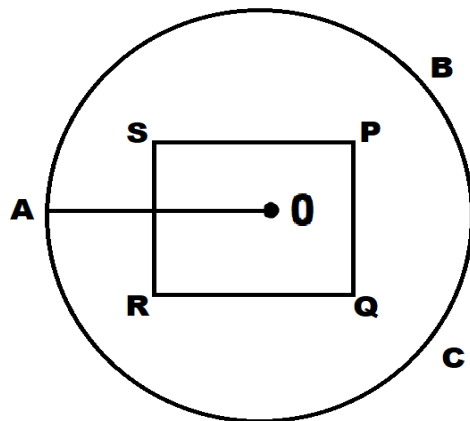
28. A survey was carried out to find number of goals 5 cored by 20 items in a football league.  
The following were results

**1 3 3 2 2 0 0 5 4 2**  
**1 1 2 5 3 5 6 0 2 2**

(a). Show this information in a table using tallies

**(4 Marks)**

29. Figure 3 shows a circular top of a table ABC, Centre O, covered with a square cloth PQRS on it



If the radius, OA of the top of the table is 70cm and the side of a square is 50 cm, calculate the area of the uncovered part of the top of the table. (Take  $\pi = \frac{22}{7}$ )

**(4 Marks)**

30. Table 3 shows time taken and distance covered by a boy in running competition

<b>Time (Min)</b>	<b>0</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>
<b>Distance (Km)</b>	<b>0</b>	<b>3</b>	<b>6</b>	<b>9</b>	<b>12</b>

Use the information in table 3 and scale of 2 Cm to represent 2 Kilometers on the vertical axis and 2 cm to represent 5 Minutes on horizontal axis, draw a line graph.

