ASK INTERGRATED TEACHERS' MOCK EXAMINATIONS BURREAU

AITEL JOINT MOCK EXAMINATIONS

MOCK, 2023

MATHEMATICS – P.7

Time Allowed: 2½hrs

Name: .....

Index No.

Read the following instructions carefully.

1. Do not open the booklet until you are told to do so.
2. This paper has got **two** sections: **A** and **B**.
3. Section **A** has **20** questions **(40marks)** and Section **B** has **12** questions **(60mks)**
4. Answer **ALL** questions. All answers to both sections **A** and **B MUST** be written in the spaces provided.
5. **All** answers must be written using a **blue** or **black** ball point pen or **ink**. Diagrams should be drawn in pencil.
6. **Un necessary** alteration of work may lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.

FOR EXAMINER'S USE ONLY

SECTION A		**Total (%)**
SECTION B		

SECTION A

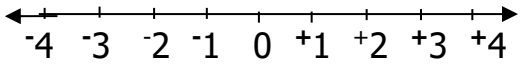
1. **Work out:**

$$\begin{array}{rr} & 1\ \ 2 \\ \times & 3 \\ \hline & \\ \hline \end{array}$$

2. A cow produces **15** litres of milk in one day. How many litres does it produce in a week?

3. Write **Fifty nine** in Roman numerals.

4. Use the number line below to find the integer which is **3** steps to the right of $^{-}$**2**.



5. **Express 465** in standard for.

6. A bus used **4** hours to move from town **A** to town **B,** moving at a speed of **40km/hr**. How far is town **A** from town **B**?

7. How many **a quarter packets** of sugar can be got from a bag of **11kg**?

8. A wheel of a car is **14cm** in diameter. Calculate its circumference.

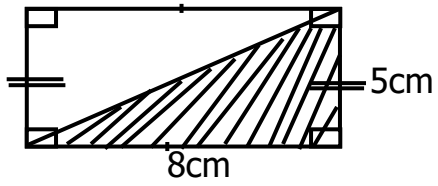
9. Find the median of **3, 0, 5, 5, 4, 2** and **7**.

10. Construct an angle of $\mathbf{90^0}$ using a pair of compasses, a ruler and a pencil.

11. Peter was **21** years by January 1998. Which year was he born?

12. Round off **46.79** to the nearest whole number.

13. Find the area of **the shaded part**.

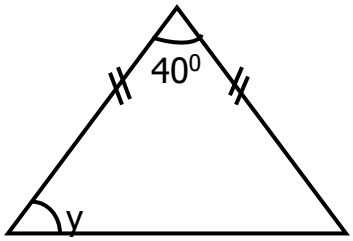


15. Give that $\mathbf{P} = \{0, 2, 4, 6\}$,

$\mathbf{Q} = \{1, 3, 5\}$

Find P ∩ Q

16. The figure below is an isosceles triangle. Find the value of **y**.



17. **Subtract:**
$(x - 3)$ from **$(3x - 6)$**

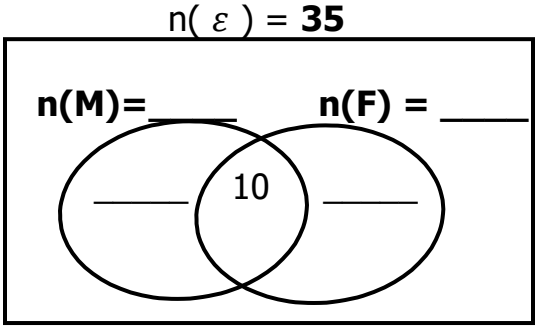
18. Find the number of subsets in a set with **4** elements.

19. Solve and find the solution set for:
$2x \geq 12$

20. The cost of **6** pens is **12,000/=**.
Find he cost of **five** similar pens.

SECTION B

21. **35** people were invited to a certain party. **15** of the guest liked meat **only (M), 10** guests liked both fish and meat. x guests liked **fish only (F)**.



(2mks)

a) Complete the Venn diagram above.

b) Find the value of x

c) How many guests took **only one type** of drink? (2mks)

22. Using a ruler, a pencil and a pair of compasses only, construct an Isosceles trapezium **BWST** in which **$\overline{BW}$ = 8cm, $\angle$B = 60^0 and line BT = 4cm**. (5mks)

23.a) What number has been expanded to give
$(2 \times 10^2) + (4 \times 10^1) + 7 \times 10^0) + (5 \times 10^{-2})$? (2mks)

b) **Work out:** $\frac{0.08 \times 0.36}{0.016}$ (3mks)

24. Ouma went to the shop and bought the following items.
- **3kg** of sugar at **70000/=** per kg
- **2½kg** of salt at **900/=** per kg
- **500g** of rice at **10,000/=** per kg
- $\frac{3}{4}$ a bar of soap at **8000** per bar

a) Calculate his total expenditure. (5mks)

b) If he was given a discount of **6000/=**, how much did he pay?

25.a) Trees are planted in a straight line, an interval of **20m** away from each other. If the total distance was **200m,**

a) How many trees were there? (2mks)

b) Find the number of spaces. (2mks)

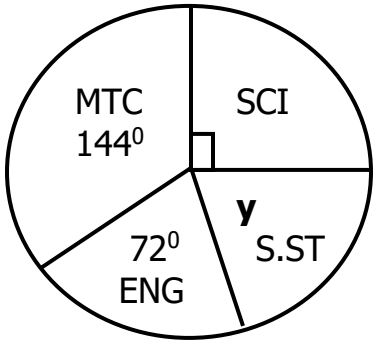
26. In a school of **800** pupils, **60%** are girls and the rest are boys.

a) Find the fraction of boys. (1mk)

b) How many girls are in the school? (2mks)

c) How many more girls are in the school than boys? (2mks)

27. The pie – chart below shows **120** candidates who passed P.L.E in Dadira Primary School.



a) Find the value of **y**. (2mks)

b) How many candidates passed science? (2mks)

c) What percentage passed Science? (2mks)

28. The median of three consecutive counting numbers is **7**.

a) Find the numbers. (3mks)

b) Find the sum of the smallest and the biggest number. (2mks)

29. Use the frequency table below to answer questions that follow.

Marks	**40 %**	**70 %**	**80 %**	**90 %**
No. of Pupils	**3**	**2**	**3**	**1**

a) How many children **passed the test** if the pass mark was **70%**? (1mk)

b) Find the median mark. (2mks)

c) Calculate the mean mark. (2mks)

30. A mother shared **Shs. 72,000** among her **3** sons; Alan Jackson and Davis in the ratio of 2:1:3.
How much did each person get? (4mks)

31. Carol is three times as old as her son Martin. If their total age is **88** years;

a) How old is Martin?
(2mks)

b) How old is Carol?
(2mks)

32. A motorist drove at a steady speed of **90km/hr** for **2 hours** from town **A** to town **B**. He then drove at a speed of **60km/hr** for **3 hours** to town **C**.

a) Find the **total distance** he covered.

b) Calculate his **average speed** for the whole journey.

END