SMART STAR EXAMINATIONS BOARD

PRIMARY SEVEN PRE – MOCK EXAMINATION - 2024

MATHEMATICS

Time allowed : 2 hours 30 minutes

EMIS No.						Personal No.		

Pupil's Name .....

School Name.....

Read the following instructions carefully:

1. This paper has **two** sections: **A** and **B**. Section **A** has **20** questions and section **B** has **12** questions.

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 fountain pen. Any work done in pencil other than graphs, pictures 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 easily be read may lead to **loss of marks.**

7. Do **not** fill anything in the boxes indicated: **"For Examiners' Use Only"** and 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** the questions in this Section.*

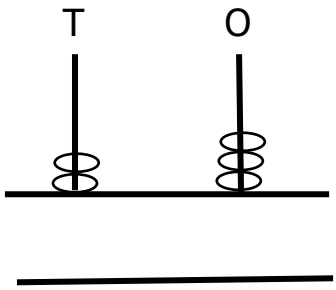
*Questions **1** to **20** carry two marks each.*

1. Subtract 4 4

$$\underline{-\ 1\ 2}$$

2. Work out the ninth triangular number.

3. Write the number shown on the abacus and draw tallies to represent it.



4. Work out: $1\ 0\ 1_{two}$

$$\underline{+\ 1\ 1\ 1_{two}}$$

5. Given that set M={r, a, t, s } and N= { 0, 2, 4, 6 }. What type of sets is set M and set N.

6. Work out: 2 – 3 = ____(finite 5) using a clock dial.

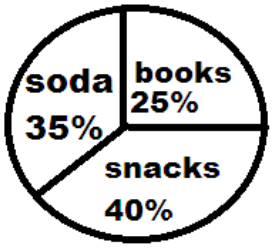
7. Work out (17.6 x 7) + (2.4 x 7)

8. Work out: $\frac{2}{3} - \frac{1}{2} + \frac{3}{8}$

9. Round off 243.98 to the nearest whole number.

10. A man deposited Sh 60,000 in a bank that offers an interest rate of 5% p.a for 2 years. Calculate the man's interest.

11. The pie chart below show how a boy spent his pocket money. If he spent Sh7500 on books, how much was his pocket money?



12. $(x+30^0)$ and $(x - 60^0)$ are supplementary angles. Find the value of x.

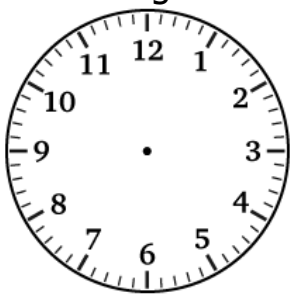
13. If set Y has 5 elements, how many proper subsets are in set Y?

14. Solve: $2x - 1 = 7$

15. Express 0.1212…..as a vulgar fraction.

16. Calculate the circumference of a circular plate whose diameter is 20m. (Take π = 3.14)

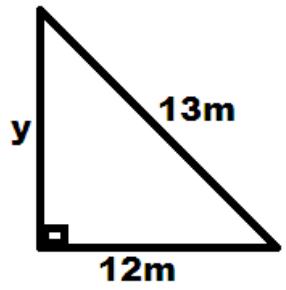
17. An examination that lasted for $2\frac{1}{4}$ hours ended at 11:00a.m. Show the starting time for this examination on the clock face below.



18. Solve: $2^n = 32$

19. Express 90km/h as metres per second.

20. The diagram below show a right angled triangle. Find the value of Y.

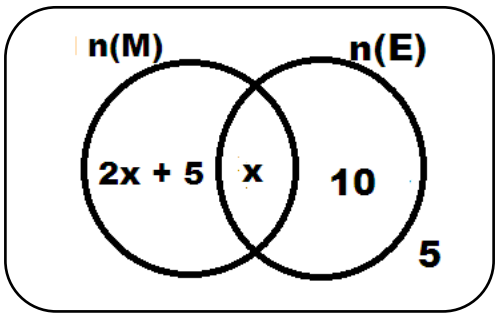


SECTION B: 60 MARKS

Answer all the questions in this section.

Marks for each question are indicated in brackets.

21. The venn diagram below shows the number of pupils who like Mathemaics(M), English(E) and those who like neither of the two subjects in a class.



a) If 13 pupils like Mathematics only, find the value of x. (2mks)

b) How many pupils are in the class? (2mks)

c) Find the probability of picking a pupil who does not like Mathematics. (2mks)

22. a) The median of n+1, n+3 and n+5 is 21. Find the value of n. (2mks)

b) 45 poles were fixed along a straight road 10m apart. How far is it from the first pole to the last pole? (2mks)

c) The LCM of X and Y is 48 and their GCF is 4. Find Y if X =16. (2mks)

23. Jolly, Julie and Molly shared money in the ratio of 3:4:5 respectively. If Molly got Sh.10,000

a) How much did they share altogether? (3mks)

b) How much more money did Jolly get than Julie? (3mks)

24. a) A flight started at 1215 hrs. Express this time in 12 hour clock system. (1mk)

b) A taxi driver travelled from Kampala to Jinja at a speed of 40km/hr for 3hours. He returned at a speed of 60km/hr. Calculate the average speed of the driver for the whole journey. (4mks)

25. a) Maria has 320 bank notes numbered consecutively. If the first note is marked BD4867420. What number is on the last note? (2mks)

b) A tourist from Britain arrived in Uganda with £ 600. How much money did he get in Uganda shillings if £1 = Ug Sh. 2500? (2mks)

26. a) What is the additive inverse of $^{-}19$? (2mks)

b) Subtract: $^{+}5 - ^{-}7$ using a number line. (2mks)

c) Solve and write the solution set for the inequality.
$2x + 5 < 1$ (2mks)

27. a) Write "sixty thousand sixty" in figures. (1mk)

b) Write 46300 in standard form. (1mk)

c) Express XDXLVI in Hindu Arabic numerals. (1mk)

d) What is the place value of 9 in 893086.(1mk)

28. a) Solve for the unknown. (2mks)

$5 (P + 2) = 25$

b) Subtract (3y-1) from (6y-5). (2mks)

29. The table below show marks scored by pupils in P.7 class.

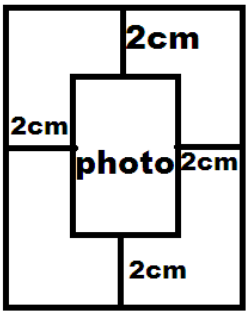
Marks	45	40	50	60
No. of pupils	1	1	2	1

a) How many pupils did the test? (1mk)

b) Find the median mark. (1mk)

c) Calculate the mean mark and state the number of pupils who scored above it. (3mks)

30. The diagram below shows a photo 11cm by 4cm centrally laid in the photo frame leaving 2cm all round.



a) Find the actual length and width of the photo frame. (2mks)

b) Calculate the area of the photo frame not covered by the photo. (3mks)

31. a) Simplify: $\frac{4.5 \times 1.6}{1.5 \times 4.8}$ (2mks)

b) 20% of a number is 80. Work out the number. (2mks)

32. Using a ruler, a pencil and a pair of compasses only, construct a triangle ABC where AB =6cm, angle BAC $=120^0$ and angle ABC = 30^0 (4mks)

b) Measure length BC. (1mk)