

**2011/2  
P1 MATHEMATICS  
PAPER 2  
MOCK EXAMINATION  
MARCH /APRIL 2018  
TIME: 2 ½ HRS**

**NAME** \_\_\_\_\_

**INDEX NO** \_\_\_\_\_

**CLASS** \_\_\_\_\_

**INSTRUCTIONS TO CANDIDATES.**

1. Write your name, index number and class in the spaces provided above.
2. This question paper contains two sections **A** and **B**.
3. Answer **ALL** the questions in Section **A**.
4. Answer any **FOUR** questions from Section **B**.
5. Answers and working in both sections **MUST** be written on the question paper in the spaces provided below each question.
6. Do not remove any pages from this booklet.

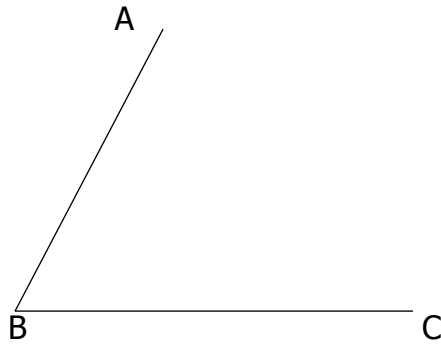
**FOR OFFICIAL USE ONLY.**

<b>SECTION</b>	<b>QUESTION</b>	<b>MAXIMUM</b>	<b>CANDIDATE'S SCORE</b>
A	1-20	60	
B	21	10	
	22	10	
	23	10	
	24	10	
	25	10	
	<b>TOTAL SCORE</b>	<b>100</b>	

**SECTION A (60 MARKS)**



4. You intend to teach your class how to use protractor to measure angles using the angle ABC drawn below. Describe two main points that you would emphasize. (3marks)



5. Pupils were asked to solve the equation

$$\frac{3}{4}k - 4 = \frac{1}{2}k + 16.$$

One of the pupils worked as follows:

$$\frac{3}{4}k - 4 = \frac{1}{2}k + 16$$

$$\frac{3}{4}k + \frac{1}{2}k = 16 + 4$$

$$1 \frac{1}{4}k = 20$$

$$k = 20 \div 1 \frac{1}{4}$$

$$k = 20 \times \frac{5}{4}$$

$$= 25$$

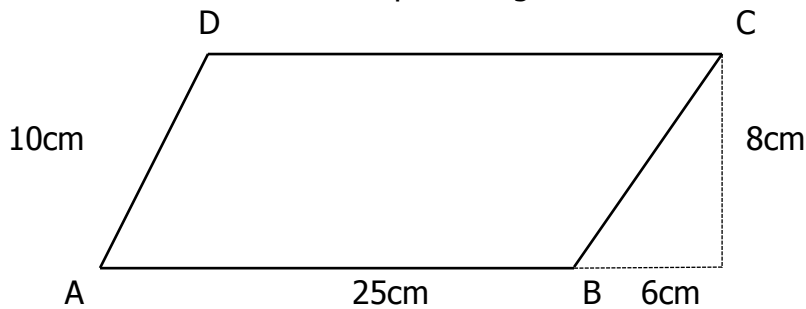
- a) What error did the pupil make? (2marks)

b) Show the correct working. (2marks)

6. You want to demonstrate to your class the meaning of giving or receiving change. Describe a practical activity you would involve your class in.(3marks)

7. Describe an activity you would involve your class in to show conservation of capacity. (3marks)

8. Pupils were asked to work out the following problem.  
"What is the area of the parallelogram ABCD shown below?"



A pupil worked out the problem as follows:  
Area of ABCD = 25cm x 10cm  
= 250cm<sup>2</sup>

- a) What would you emphasize in your remedial teaching so that the pupil works out such a problem correctly? (1mark)
- b) Show the correct working. (2marks)

9. List the steps you would follow to lead your class to collect and organize data in a frequency distribution table using the height of pupils in the class. (3marks)

10. Explain how you would lead your pupils to construct an angle of  $22\frac{1}{2}$  using a ruler and a pair of compasses only. (3marks)

11. In working out  $\frac{3}{5} + \frac{1}{5}$ , a child got the answer as  $\frac{4}{10}$

a) What error did the child make? (1mark)

b) In your remedial teaching what would you emphasize for the child to get the correct answer? (2marks)

12. State three errors pupils are likely to make when multiplying whole numbers such as  $34 \times 25$ ? (3marks)

13. Using cubes of 1cm, describe a practical activity you would use to show your class that the volume of a cuboid is given by length x breadth x height. (3marks)

14. You have taught conversion of time from 24-hr system to 12- hr system and vice versa. Using the examples given explain how you would teach the following conversions.

a) 0700hrs to 12 hr system. (1mark)

b) 10.40 a.m to 24 hr system (1mark)

15. Learners counted the number of vehicles passing through a roadblock. The rates of cars to matatus was 5:3 and that of matatus to buses was 7:2. If the learners counted 12 buses, how many vehicles did they count altogether? Show the chalkboard layout of the solution. (4marks)

16. A teacher wanted to introduce preparation of a bill and gave the following question to her class.

3kg rice @ shs. 120.00  
1 ½ kg sugar @ shs.80.00  
2kg potatoes @ shs. 50.00  
4kg tomatoes @ sh. 60.00  
4 packets of milk @ shs.40.00  
6 eggs @ shs. 120.00 per dozen

- a) What prior knowledge should the learners have? (1mark)
- b) What learning aid can be used in the lesson? (1mark)
- c) Prepare a bill for the items. (3marks)



17. The marked price of a television set was shs. 20,000. Maria bought the set at shs. 19,500. What was her percentage discount? Using this information, list the steps involved in calculating percentage discount. (3marks)

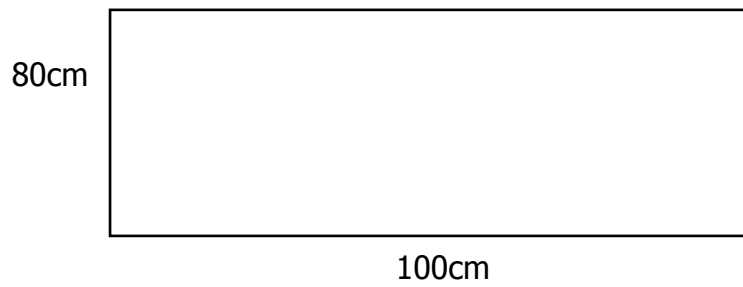
18. A pupil was given the division  $2032 \div 4$  and worked it out as follows:

$$\begin{array}{r} 58 \\ 4 \overline{) 2032} \\ \underline{20} \phantom{2} \\ 32 \\ \underline{32} \\ 0 \end{array}$$

- a) What error did the pupil make? (1mark)

- b) How would you help the pupil get the correct answer? (2marks)

19. A pupil was asked to find the area of the rectangle below in square metres. He gave the answer as  $0.36\text{m}^2$



Write down the errors the pupil made. (2marks)

20. Describe how you would introduce the decimal 0.1 to your class. (2marks)

**SECTION B. (40MARKS)**

**Answer any FOUR questions from this section.**

21. A teacher intends to introduce subtraction of fraction such as

$$\frac{3}{4} - \frac{1}{3}$$

- a) State the objective of the lesson. (2marks)
- b) Giving an example in each case, state prior knowledge involving subtraction of fractions that pupils would be expected to have. (4marks)
- c) Using the example  $\frac{3}{4} - \frac{1}{3}$  describe the steps that the teacher should follow to guide learners work out the subtraction (2marks)
- d) State two errors that pupils are likely to make when subtracting fractions. (2marks)

22. Pupils have collected the following data on the number of children in their families.

No. of children	No. of families
1	3
2	4
3	5
4	3

- a) Name a teaching aid and describe how you would use it to introduce a bar graph (4marks)
- b) Describe the steps you would follow to lead the class to draw a bar graph to represent this information. (4marks)
- c) Which two points would you emphasize on the drawing of a bar graph. (2marks)

23a) Describe an activity you would involve your pupils in to estimate the area of a circle.  
(4marks)

b) Pupils in your class already know that the circumference of a circle is  $2\pi r$ . Describe a practical activity that you would undertake with your class that makes use of this knowledge to show that the area of a circle is  $\pi r^2$   
(6marks)

24. You intend to take your pupils for a field trip to collect data on types of fruits and vegetables sold in the market and their sources and prices.

a) List the preparations you would make in school before leaving for the trip. (4marks)

b) What activities would the pupils carry out at the market? (2marks)

c) What activities would be carried out after going back to school? (2marks)

d) Write a word problem involving getting balance related to the field trip? (2marks)

25. You intend to introduce to your class how to add a two digit number to a two digit number with carrying from the ones.

a) What relevant previous knowledge should the pupils have? (2marks)

b) What would be the objective of the lesson? (1mark)

c) Name a teaching aid you would use for the lesson. (1mark)

d) Describe a practical activity you would use to show the addition  $26 + 27$  (6marks)