**PRIMARY SEVEN EXAMINATIONS 2019**

**MATHEMATICS**

*Time : 2:30minutes*

**Pupil’s name :……………………………………………… Index No……………........**

**SECTION MARKS**

**B**

**A**

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO**

**Read the following instructions carefully.**

**T**

1. **Read the instructions carefully**

1. **Answer ALL questions in Section A & B**
2. **Answers should be put in the space provided.**
3. **All answers should be written in blue or black ink.**
4. **Unnecessary alterations may lead to loss of marks**
5. **Any handwriting that cannot be read may lead to loss of marks.**

**SECTION A (40 MARKS)**

1. Find the square number of 4.
2. Write the unshaded fraction in its simplest form.
3. Given that set A has 63 proper subsets. Write the number of elements in set A in words.
4. Study the pattern below and complete it correctly.

2304, 576, 144, 36, \_\_\_\_\_



1. If represents 6 pineapples and each pineapple costs sh. 200. What is the total cost of pineapples represented by ?
2. Ritah had cards numbered with 4 , 6 , 7 , 0 . Find the place value of 6 in the smallest number she formed using the above digits.
3. Tap A fills the tank in 3 hours and Tap R fills the same tank in 5 hours once opened. How long will it take the two taps to fill the tank if opened together at the same time?
4. Express 101two in denary base.
5. Fill in the missing number. 10 – = 12.
6. Without using a compass, draw 450 in the space given below

1. Reduce sh. 28,000 in the ratio 4:5.
2. A baby slept at 12:40pm, express that time in 24 hour clock system.
3. In a class of 28 boys, 20 like English, 18 like Science and some like both English and Science. Express the number of all pupils in standard form.

1. The area of a squared garden is 1.44m2. Calculate the size of its length.
2. Without dividing, which of the following numbers is exactly divisible by 10. (Give a reason for your answer)
3. Workout: **-**2 x 4 using a number line.
4. Express 5m/sec into kilometers per hour.

1. David collected 496 eggs on Monday. Express the number of eggs collected in roman numerals.
2. The average of 7, 2m and 5 is 10. Find the value of m.

1. With the help of a well happened pencil and a ruler, draw the net of square based pyramid.

**SECTION B (60 MARKS)**

1. In a P.7 class, n(MN) = x, n(MN)=2x, n(M – N) = 5, n(N)=15. Complete the venn diagram below (3marks)

(∑) = 26

n(M)=\_\_\_\_\_ n(N)=15

5 \_\_\_ \_\_\_

x

b) Find n(M N) (2marks)

1. a) In the figure below, EDC is a straight line, AB is parallel to EC, CB = CD and BA = BD and angle BCD = 480. What is the size of angle DAB? (4marks)

E D C

480

A B

1. Study the diagram below and answer the questions that follow

10m

6m

20m

a) Calculate the volume of the figure below (4marks)

b) Find the total length of all edges. (2marks)

1. A farmer has 72 animals on his farm. He has twice as many cows as sheep and six times as many goats as sheep.

a) How many cows are in the farm? (4marks)

b) If each sheep costs sh. 120,000, how much can he get from the sale of all the

sheep on the farm? (2 marks)

1. The graph below represents pupils asbsentees in week 1 of the term.

In a school of 240 pupils, the graph represents pupil absent in week two of the term. Use it to answer questions that follow

60

50

40

30

20

10

0

**Mon. Tue. Wed. Thur. Fri.**

**Days**

a) On which day were absent? (1mark)

b) Why do you think all the pupils were absent on the day mentioned above?

(1mark)

c) Calculate the range of the absentees in that week. (2marks)

d) Find the total number of pupils who attended school on Monday and Tuesday.

(2marks)

1. a)Express 123four to base five. (3marks)

b) Workout: 101two x 11two (2marks)

1. A = 3k + 4m and B = 2k – 3m, given that W = 2, X = 3,

What is the value of A – B? (4marks)

1. a) Construct a regular quadrilateral PQRS where = 6.4cm and QRS =1200.

(4marks

b) Measure diagonal 

1. a) What amount when increased by 20% becomes shs. 7200? (3marks)

b) Express as a decimal fraction. (2marks)

1. Calculate the area of the shaded part. (5marks)

**5m**

**4m 4m 16m**

**5m**

**20m**

1. Study the diagram below and answer the questions that follow

m

m

2m

m+600

4m+400

m+100

a) Find the value of m. (3marks)

b) How many triangles can be formed from a regular pentagon. (**Use a diagram**)

(2marks)

1. Maria left town A for town B, moving at a speed of 60km/hr for 3 hours. She rested at town D for 30 minutes and continued to town C at a speed of 40km/hr for 2hours and 30 minutes. Calculate her average speed for the whole journey. (5 marks)

**END**