**DREAM AFRICA SCHOOL - SEETA**

**PRIMARY SEVEN TOPICAL TEST TERM I – 2020**

**MATHEMATICS**

**Name: ……………………………………………………… Signature…………………..**

1. Define a set.

2. Draw a symbol of a null set.

3. Describe the sets below using set notation.

**A** = a, b, c

**B** = c, b, a

4. Describe the shaded part in the Venn diagram below.

**B**

**A**

5. Draw a Venn diagram to show that all girls are female.

6. Given that set **P** = a, b, c

How many subsets can be formed from set **P**?

7. How many members are in a set that has **32** sub sets?

8. Draw a Venn diagram to show that **A B = B**

9. Find the number of proper subsets in a set with **5** elements.

10. What is the smallest number that can be put the ones place value for the numeral **1 2, 3 2** to be exactly divisible by **3**?

11. Find the missing number in the sequence below.

1, 4, 9, 16, \_\_\_\_\_\_\_

12. Work out the square of

13. Find the square root of **64**.

14. Prime factorise **30** and write your answer in set notation form.

15. Work out the G.C.F of **12** and **18**.

16. **Solve for .**

17. Express **1496** in Roman numerals.

18. Express **110two** to base ten.

19. **Add:**

**1 6 4 seven**

**+ 2 4 4 seven**

\_\_\_\_\_\_

20. Write **0.0032** in scientific notation.

**SECTION B**

21. In an English (E) speaking class of **70** pupils, **35** speak Luganda (L) and **30** speak French (F) and English (E), **10** speak English only while **Y** speak all the **3** languages.

a) Complete the Venn diagram below.

**n() = n(E) = 70**

**n(L) = \_\_\_\_ n(F) = \_\_\_\_**

\_\_\_\_\_ **y** \_\_\_\_\_\_

\_\_\_\_\_\_

**(3mks)**

b) How many pupils speak **3** languages?

c) How many pupils speak only 2 languages?

c) How many pupils speak at most **2** languages?

22. The area of a square is **49cm2**.

a) Find the length of each of its sides.

b) Calculate its perimeter.

23. The sum of **4** consecutive odd numbers is **32**.

a) Find the numbers. (5mks)

b) Find the range of the numbers.

24. Use the Venn diagram below to answer the questions that follow.

**F36 Fy**

22

a 21 51

31

Find:

1. a
2. y
3. L.C.M of **36** and **y**
4. G.C.F of **36** and **y**

25. Two bells are used to change lessons. One rings after every **30** minutes and the other after every **40** min. If they rang together at **8:00am;**

a) After how long will they ring together again?

b) At what time will they ring together again?

26.a) Find the number that you can divide by **5** or **8** and it leaves a remainder of **9**.

b) The L. C. M of **2** numbers is **72** their G.C.F is **8**. If one of the numbers is **24** and the other is **y,** find the value of y.

27. The volume of the cuboid below is **64cm3**.

**y**

a) Find the value of **y**.

b) Work out the area of the shaded part.

28. Solve for **.**

a)  **= 23ten**  (3mks)

b) **22 = 118nine**

29. **Simplify:**

i) **32 32**

ii) **64 62**

30. Given the numerals **30** and **20**.

a) Find their G.C.F

b) Find the L.C.M of the numerals above.

31.a) Expand **31.23** using powers of **10**.

b) **Simplify:**

**0.06 x 0.032**

**0.6 x 0.04**

32. Use the table below to answer the questions that follow.

|  |  |  |
| --- | --- | --- |
| **Digit** | **Place value** | **Value** |
| 1 | Ones | 1 |
| 2 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 20 |
| 3 | Tenths | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 4 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 0.04 |
| \_\_\_\_\_\_\_\_\_ | Thousandths | 0.006 |

**END**