Time allowed: 2hours 30 minutes

Name: …………………………………………………………..……………….……………..

District …………….…………………………………………Stream:………………………..

FOR EXAMINER'S USE ONLY

Read the following instructions carefully:

1. The paper has two section: A and B.
2. Section **A** has 20 short- answer questions (40 marks).
3. Section **B** has 12 questions (60 marks).
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. Unnecessary change of work may lead to loss of marks.
7. Any handwriting that can not easily be read may lead to loss of marks.
8. Do not fill any thing in the boxes. They are for examiner's use.

FOR EXAMINER'S USE ONLY		
Qn No.	**MARKS**	**Exr's No.**
1 – 10		
11-20		
21-22		
23-24		
25-26		
27-28		
29-30		
31-32		
TOTAL		

SECTION A

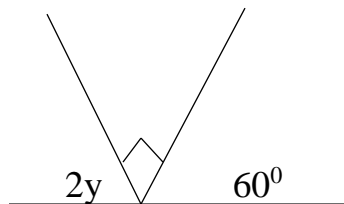|	
1. Add: 9 + 11	2. Write 145 in Roman numerals
3. Work out 0.3×0.4	4. Simplify 6r + 12p –r +3p
5. Prime factorize 60 and write your answer in set notation form.	6. Workout: $4 - {}^-10$
7. Find the value of y 2y 60^0	8. Find the mean of 5, 9, 6 and 4

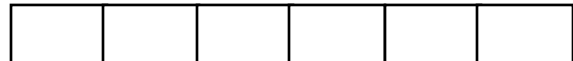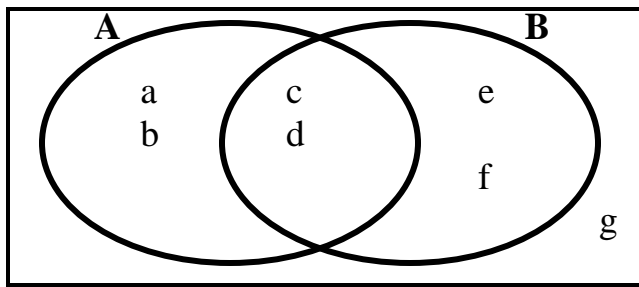|	
9. Divide: $\frac{3}{4} \div \frac{1}{2}$	10. Construct an angle of 60^0 in the space below.
11. Express 5kg to grams	12. Use distributive property to work out (5 x 17) + (83 x 5)
13. Work out the square of 9	14. Shade $\frac{2}{3}$ of the diagram.
15. Write the next two numbers in the sequence: 1, 4, 9, 16, 25, _____, _____	16. Musoke will visit her aunt next week. What is the probability that he will visit on a day that starts with letter T?

17. The Venn diagram below shows elements of set A and B

A [diagram with elements: a, b in A only; c, d in intersection; e, f in B only; g outside both]

B

Find n(A)'

18. Find the GCF of 6 and 9

19. If ⚽ represents 15 balls. How many balls are represented by ⚽ ⚽ ⚽ ⚽ ⚽?

20. Write 212_{three} in denary base
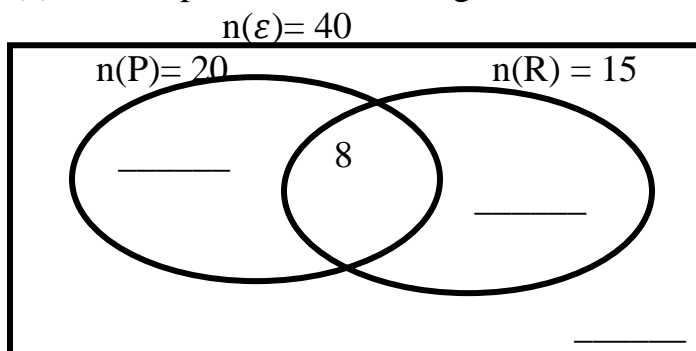
SECTION B

21. In a class of 40 pupils, 20 pupils like posho (P), 15 like rice (R), 8 pupils like both posho and rice while x pupils do not like any of the two meals.

(a) Complete the Venn diagram below. (3 marks)

$n(\varepsilon) = 40$

$n(P) = 20$ $n(R) = 15$

[Venn diagram with ___ in P only, 8 in intersection, ___ in R only, ___ outside]

(b) Find the value of X (2 marks)

4

22. Given the number 4876
    (a)   Find the sum of the values of 4 and 7   (3 marks)

    (b)   Write of 4876 in standard form.   (2 marks)

23. Arrange $\frac{5}{6}, \frac{7}{12}$ and $\frac{4}{5}$ in ascending order.   (4 marks)

24.   Donso went to the supermarket and bought the following items.
       3 kg of meat at sh. 10,000 a kg
       2 bars of soap at sh. 7,000 a bar
       3 litres of milk at sh. 1000 per litre
       $\frac{1}{2}$ *kg of sugar at sh. 5000 a kg*
       (a) Calculate his total expenditure.   (4 marks)

       (b) Find her change if she went with a fifty thousand shilling note.   (1 mark)

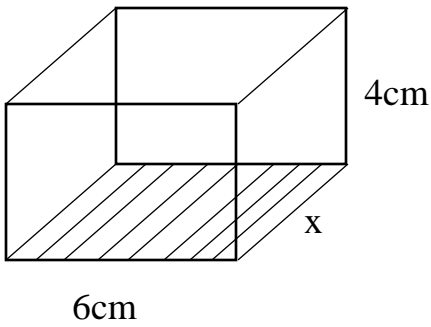25.   (a)   If r = 4, p = 10 and c= 5. Find the value of $\underline{r\ p}$ (2 marks)
                                                              c

       (b)   Alice is 10 years older than Judith. If their total age is 40 years, how old is Judith?
                                                              (3 marks)

26. Study the figure below and use it to answer the questions that follow.

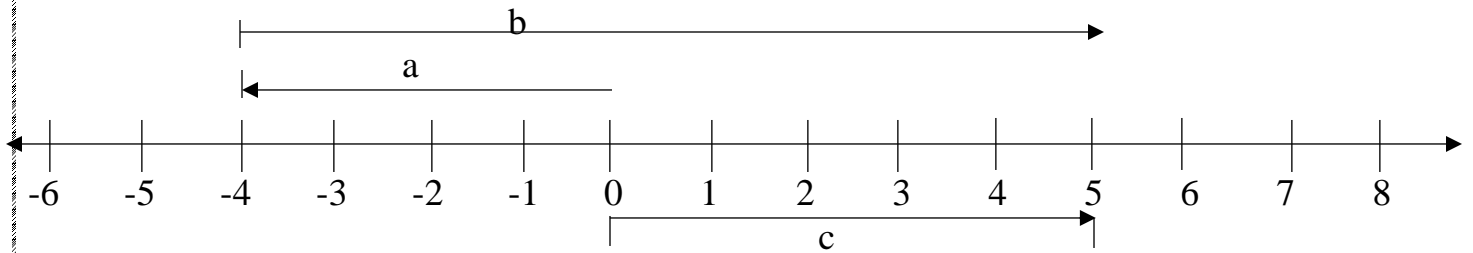   (a)   How many faces does the figure have?

                                                  (1mark)

4cm

x

6cm

(b)   If the area of the shaded part is $30cm^2$. Find the value of x   (2 marks)

(c) Calculate the volume of the figure above.   (2 marks)

27.   (a)   The sum of three consecutive odd numbers is 45. Find the numbers.   (3marks)

(b)   What is the sum of all prime numbers less than 10?   (2 marks)

28. Study the number line below and use it to answer the questions that follow.

(a) Write the integers represented by letters.   (1 mark each)

(i)   a   (ii) b   (iii)   c

(b) Write the Mathematical sentence for the above number line.   (1 mark)

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29. If P = { 2_1, 3_1, 3_2, 5_1 }   Q={2_1, 2_2, 3_1, 7_2}

(a)   Find the value of:

(i)   P   (2marks)   (ii)   Q   (2marks)

(b)   Calculate the LCM of P and Q   (2 marks)

   (i)   L.C.M

30. (a)   Construct a square ABCD of side 5cm   (4 marks)

    (b)   Work out its perimeter.   (1 mark)

31. Two bells at St. John's Primary School are sounded at an interval of 30 minutes and 40
     minutes for lower and upper Primary respectively.
     (a) After how many hours will the two bells be sounded together again?   (4 marks)

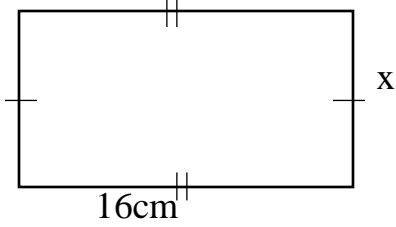   (b) If they were first sounded at 9:00a.m., when will they be sounded together again?
                                                                  (1mark)

32. Study the diagram below and use it to answer the questions that follow.

2x+6cm   (a)   Find the value of x.   (2 marks)

x

16cm

(a)   Calculate the area of the figure.   (2 marks)

(c)   Work out its perimeter.   (2marks)