PASS PLE EXAMS

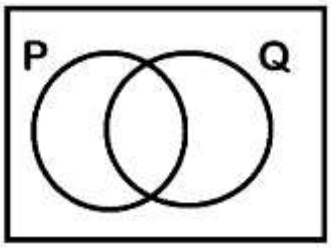
PREPARE FOR P.L.E EXAMINATIONS 2021

SET I

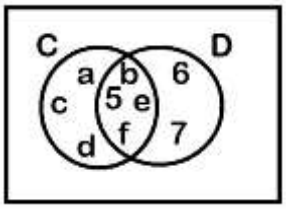
Attempt all questions

Time Allowed: 2 hours 30 minutes

Name: …… Stream……

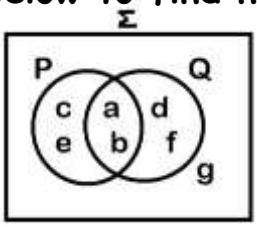
1. Given that set P = {1,3,5,7,9} and set Q = {2,3,5,7}. Find n(PnQ). **2. Given set A = {a,b,f,k} and set B = {a,c,k}, find n(AuB).** **3. Given that k = {0,1,2,3,5,7} B={0,4,6,7,9}, find n(A - B)** **4. If R = {2,4,6,8} and Q = {1,2,3,5,6,7}, find n (RUQ)**	**5. In the Venn diagram below, shade complement of set Q.**  **6. Given that set D ={ c, a, t }. List all subsets of set D.** **7. Set A has four elements, find the number proper subsets set A has.**

8. use the Venn diagram below to find n(D)[1]



9. Below are subsets of set P listed.
{ }, { e }, { m }, { m, e }
How many elements are in set P

10. Use the Venn diagram below to find n(P n Q)[1]

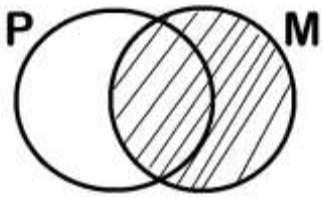


11. **All dogs are animals. In the space below, draw sets to show the above information.**

12. Set Y has 32 subsets, find how many proper subsets it has.

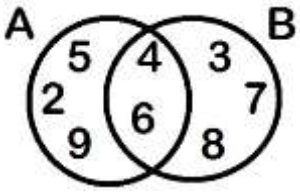
13. Given that set A = { n, t, e } And set B = { c, u, p }. What is the relationship between set A and B.

14. Describe the un shaded region



15. Given that set H has 8 subsets, how many elements are in set H.

16. In the venn diagram below, find n(B–A).



17. in the space below, draw the set symbols for

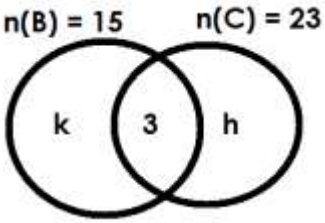
(a) Subsets

(a) Equivalent set

.

18. Use the venn diagram below to

(i) find the value of *k*



(ii) Find the value of *h.*

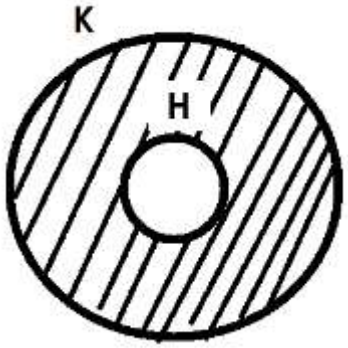
19. Given that:

Set D = { b, r, i, n, g }

Set E = { b, r, e, a, k }

Find the number of elements that are in set D and there are also members of set E.

20. Describe the shaded region.

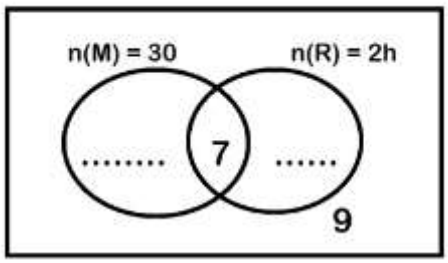


SECTION B (60 MARKS)

21. **A class of 68 pupils was served matooke *(M) and rice (R).* 30pupils ate matooke and *2h* ate rice. 7 pupils ate both matooke and rice while 9 pupils did not eat either of the foods.**

(a) Use the given information to complete the Venn diagram below. *(2 marks)*

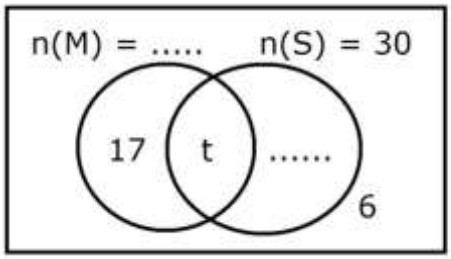
$n(\Sigma) = 68$



(b) How many pupils ate rice only? *(3 marks)*

22. **In a class party, two types of drinks were served, soda (s) and mineral water (m). 30 pupils took soda and t pupils took both soda and mineral water. 6 pupils took neither of the drinks while 17 pupils took only mineral water. The number of pupils who took soda only was twice that of those who took both soda and mineral water.**

(a) Use the given information to complete the Venn diagram below.



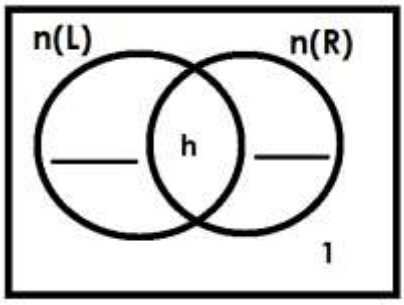
(2 marks)

(b) Find the number of pupils who took both drinks. *(2 marks)*

(c) Calculate the total number of pupils in the class. *(2 marks)*

23. In a football team, 5 players use the left leg (L) only, h players use both the Left leg and the right leg, (h+1) use the right leg (R) only and 1 player does not use any of the legs.

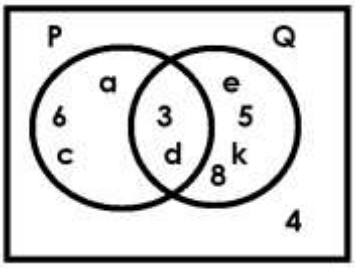
(a) Use the above information to complete the venn diagram below.



(2 marks)

(c) If there are 8 players that use only one type of leg. Find the value of h. *(3 marks)*

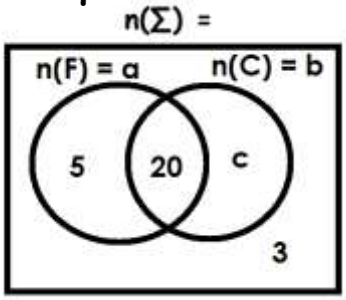
24.Use the venn diagram to answer questions that follow



(a) Find n(PUQ)' *(2 marks)*

24(b) Find the number of subsets that can be formed from members of set P *(3 marks)*

25. The venn diagram below shows the number of pupils who ate two different dishes, Fish(F) and Chicken (C) at their leavers' party held in February 2020. Use it to answer questions that follow.

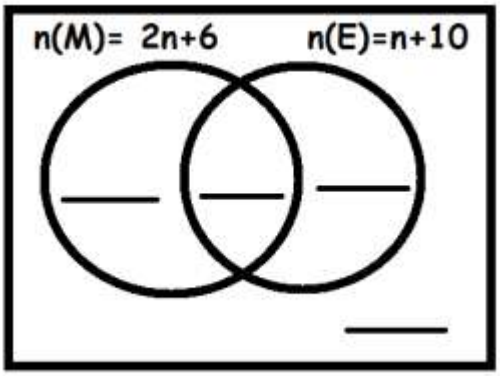


(i) If 30 pupils did not eat Fish, find the value of c? *(3 marks)*

(ii) How many pupils eat Chicken? *(2 marks)*

26.In a class of 53 pupils, (2n+6) like Mathematics (M), (n + 10) like English (E), n pupils like both subjects and 3pupils do not like any of the two subjects.

(a) Use the above information to complete the venn diagram below. *(2 marks)*



(b) Find the value of n *(3 marks)*

27.At Kireka Primary school, p.6 pupils were served with soda Fanta (F) and Mirinda (M). 30 were served Fanta, 14 were served both Mirinda and Fanta and. 5 were not served with any of the two drinks.

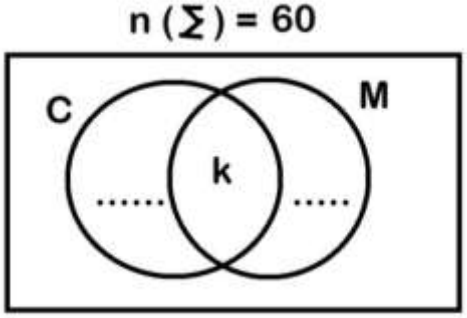
(a) Draw a venn diagram and represented the above information. *(4 marks)*

(a) If the probability of picking a child at random who didn't take Fanta is $\frac{24}{55}$. Find the number of pupils who took mirinda only

(3 marks)

28 At a party attended by 60 pupils, 42 ate chicken (C), (K + 8) ate meat (M) only. k pupils ate both chicken and meat while 6 did not eat any of the two items.

(a) Use the information given above to complete the Venn diagram below.



(1 marks)

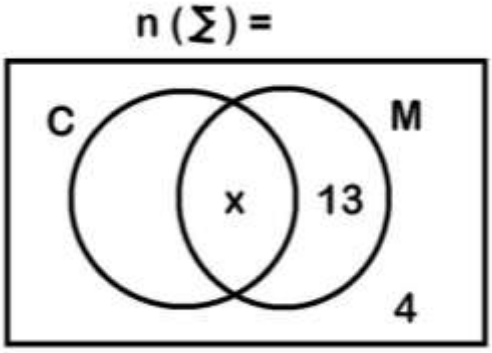
.b) Find the value of K. *(2 marks)*

(c) If a pupil is picked at random, what is the probability that the pupils ate meat?

(2 mark)

29.At a birthday party attended by 40 guests, 18 ate chicken (C) only, 13 ate meat (M) only, X guests ate both chicken and meat and 4 did not eat any of the two dishes.

(a) Use the above information to complete the Venn diagram below.



(1 mark)

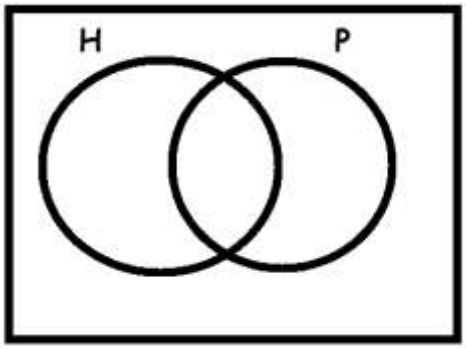
(b)Find the value of x.

(2 marks)

(C) How many guests did not eat meat at all? *(2 marks)*

30.Given that set H = {3,5,7,9,11 } and set P= { 4,7,6,10,11}

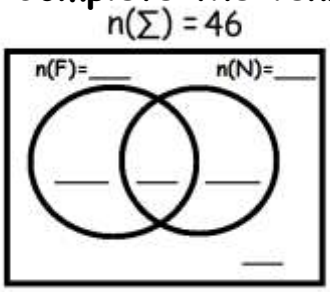
(a) Represent the above information on the venn diagram below *(3 marks)*



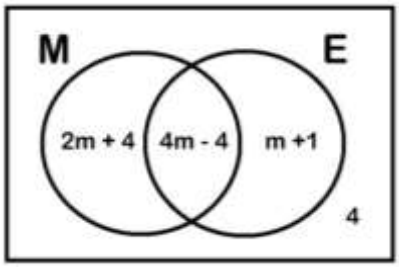
(b) Find n (H – P) *(2 marks)*

31.In a class of 46 pupils, All of them play volley ball , 28 play football (F) and volley ball, 22 play netball (N) and volley ball, while n pupils play all the three games and 4 play volley ball only.

(a) Complete the venn diagram below *(3 marks)*



32. The Venn diagram below shows number of pupils in a class who like Mathematics(M) and those who like English(E)
Study it carefully and use it to answer the questions that follow.



(a) If the number of those who like Mathematics is five times the Number of those who like English only. Find the value of m *(4 marks)*

END