*Answer **all** questions in this section.*
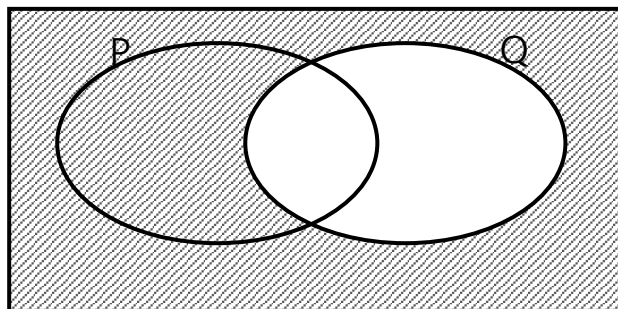*Questions **1** to **20** carry two marks each.*

1. Work out: 25 + 52

2. Write in numerals: "Forty thousand, forty".

3. Simplify: 3a – 5a + 6a

4. Work out: $\dfrac{3}{4} \div \dfrac{1}{8}$

5. In the Venn diagram below, describe the shaded part.

6. Calculate the complement of 66^0.

7. Given that a = 2 and b = 5. Find the value of $a^2 - ab$.

8. Find the mode of 6, 8, 6, 5, 3, 8, 9, and 8.

9. Work out:

	Hrs.	Min
	2	45
+ 3		55

10. Using a ruler, a pencil and a protractor only, draw an angle of 110^0.

11. Work out: $3 - 4 =$ _____ (finite 5)

12. Express $\dfrac{3}{5}$ as a percentage.

13. Change 13_{ten} into a binary base.

14. Write the number that has been expanded to give;
    $(4 \times 10^4) + (2 \times 10^2) + (3 \times 10^0)$

15. Arrange 2, ⁻1, 3, 0, ⁻4 and ⁻3 in ascending order.

16. Solve: $3p - 12 = 6$

17. The cost of 4 exercise books is sh. 3,600. Find the cost of six similar exercise books.

18. Express 2.5 km as metres.

19. In order to complete the work in 40 days, a contractor needed 250 workers. If 50 workers failed to turn up, how many more days did the workers take to complete the work?
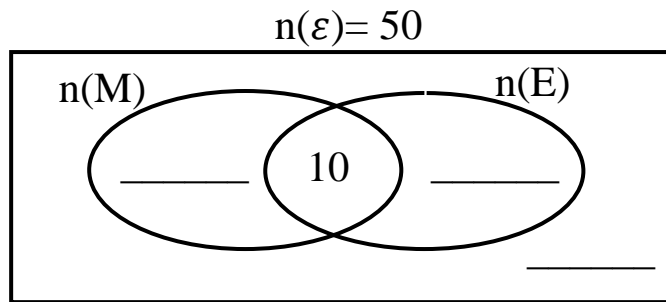
20. Given that P = {0, 2, 3, 5}. Find the number of subsets that can be formed from set P.

SECTION B: (60 MARKS)

21. In a class of 50 pupils, 30 like Mathematics (M), 25 like English (E), 10 pupils like both subjects while h pupils do not like any of the two subjects.

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

$n(\varepsilon)= 50$

n(M)   n(E)

_____   10   _____

_____

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

c) How many pupils like only one drink? *(1mark)*

22. A man deposited sh. 600,000 in the bank that offers an interest rate of 15% per annum for 1½ years.

    a) Calculate his simple interest. *(2 marks)*

    b) How much money is in the man's account at the end of the period? *(2 marks)*

23. The sum of 3 consecutive counting numbers is 93. Find the numbers.

(4 marks)

24.a) Using a ruler and a pair of compasses only, construct a triangle PQR in which line PQ = PR = 6cm and angle QPR = 90^0. *(4marks)*

b). Measure the line QR. *(1mark)*

25. The table below shows the marks scored by pupils in a mathematics test.

Marks scored	80	70	90	60
Number of pupils	2	3	1	4

a) How many pupils sat for the test?   *(2marks)*

b) Find the mode.   *(1mark)*

c) Calculate the mean mark?   *(3marks)*

26. Telephone poles are placed 30 metres apart beside a straight stretch of the road. Kakuru was driving along the same road, he passed 121 poles in 2 minutes. What was his speed in kilometres per hour? *(3 marks)*

27. Mutoni went to the market and bought the items as shown on the table below.

Item	Quantity	Unit price	Total cost
Sugar	2 kg	Sh. 3,500 per kg	Sh. _____
Meat	_____kg	Sh. 8,000 per kg	Sh. 24,000
Milk	2½ litres	Sh. 1,200 each litre	Sh. _____
Bread	4 loaves	Sh. _____ @ loaf	Sh. 8,000
	Total expenditure		Sh. _____

Complete the table above.   *(5 marks)*

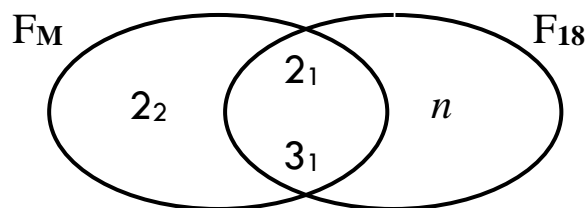a) If she went with sh. 50,000, find her change.   *(1 mark)*

28.a) Work out: $\dfrac{0.24 \times 1.5}{0.8 \times 0.5}$ *(3 marks)*

   b) Simplify: $\dfrac{1}{4} - \dfrac{1}{2} + \dfrac{1}{3}$ *(2 marks)*

29. The Venn diagram below represents the prime factors of two numbers. Use it to answer the questions that follow.

F_M 2_2 2_1 3_1 n F_{18}

a) Find the value of M. *(2marks)*

b) Calculate the value of n. *(2marks)*

c) Work out the GCF of M and 18. *(2marks)*

30.a) Solve: 4(x – 2) = 28   *(3 marks)*
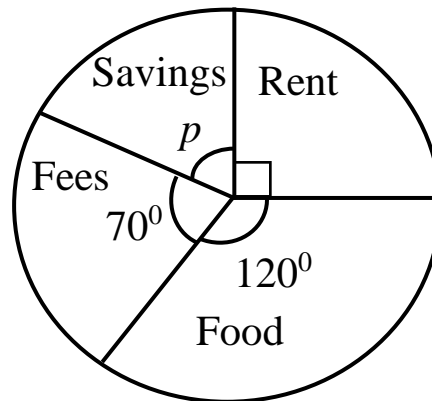
b) Olupot is twice as old as his brother Jamwa. If their total age is 18 years, how old is Jamwa?   *(2 marks)*

31. John, Fatuma and Daniel shared a certain amount of money in the ratio of 2: 5: 3 respectively. If Daniel got sh. 60,000;
    a) How much money did they share altogether?   *(4 marks)*

    b) How much more money did Fatuma get than John?   *(1 marks)*

32. The pie-chart below shows Muzorewa's monthly expenditure of sh. 720,000. Use it to answer the questions that follow.

a) Find the value of p in degrees. *(3 marks)*

b) How much more money does he spend on food than on rent? *(3 marks)*

END