

Q 1) Solve any six**(6)**

1. Write tenth term of A.P if $a=7$, $d=3$
2. State whether $x=-7$ is the root of the quadratic equation $x^2 + 5x - 14 = 0$ or not.
3. Write the following in standard form $(x+3)(x-2)=0$
4. For equation with two variable $Dx = 21$, $D=7$. Find value of x
5. Two coins are tossed. Write down the sample space and $n(S)$.
6. Write class mark of 85-95.
7. Find mean if $\sum fx = 750$ and $\sum f = 30$

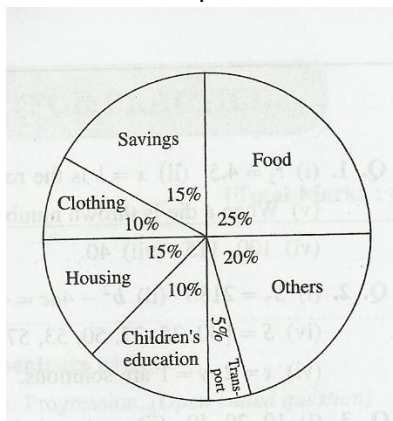
Q 2) Solve any four**(10)**

1. For an G.P 4,8,16.... Find S_7 .
2. Solve by factorization method $x^2 - 3x + 180 = 0$.
3. Solve by Cramer's rule $4x + 3y - 4 = 0$; $6x = 8 - 5y$
4. A coin is tossed three times. Find probability of i) atleast one head turns up ii) same faces in all three coins.
5. Find value of k if equations have infinitely many solutions $4x - y = 7$; $16x = ky = 28$;
6. Calculate mode for the following

Class Interval	25-30	30-35	35-40	40-45
Frequency	20	60	40	35

Q 3) Solve any four**(12)**

1. The sum of first 55 terms of A.P is 33000. Find the 28th term.
2. Solve the following by completing the squares method $5m^2 - 2m - 2 = 0$
3. Solve the following graphically $4x = y - 5$; $y = 2x + 1$
4. A box contains 36 tickets numbered from 1 to 36. One ticket is drawn in random. Find probability that the ticket is either divisible by 3 or a perfect square.
5. The given pie diagram shows spending of family . Answer the following a) If the total income is Rs 175,000 how much he spends on children's education. b) find expenses on housing

**Q 4) Solve any three****(12)**

1. Find four consecutive terms in an A.P whose sum is 12 and sum of 3rd and 4th term is 14.
2. A rectangular playground is 420 sqm. If its length is increased by 7m and breadth is decreased by 5m, the area remains the same. Find the length and breadth of playground.
3. Calculate mean using assumed mean method

C.I	10-15	15-20	20-25	25-30	30-35	35-40
Frequency	20	15	35	40	30	10

4. Solve $\frac{16}{x+y} + \frac{2}{x-y} = 1$; $\frac{8}{x+y} - \frac{12}{x-y} = 7$

Q 5 Solve any four**(20)**

1. Tinu takes 9 days more than John to do a certain piece of work. Together they can do the work in 6 days. How many days will Tinu take to do that work.
2. From the same place at 7 a.m 'A' started walking in the north at the speed of 5km/hr. after 1 hour B started cycling in the east at a speed of 16km/hr. at what time they will be at a distance of 52km apart from each other.
3. A two digit number is 6 times sum of its digits. if the digit in the unit's place is increased by 3 and the digits in the tenth's place is decreased by 3 and 18 is added the digits are reversed. Find the number.
4. Two dice are thrown. Find the probability that the product on their upperfaces is 12 or the sum of the numbers on their upper faces is 8.
5. For the following distribution draw a histogram and find mode.

C.I	20-30	30-40	40-50	50-60	Total
Frequency	a	2a	3a	a	70