Q6: Qc. Answer

Given Data   Good

• 2 Groups of Boys and Girls

Each group consists of
   Boys = 4
   Girls = 6
Girls available for
   such grouping = 102

Required:
   Boys available for
   such grouping = ?

Solution:
   Total members in
   each group = Boys + Girls

   = 4 + 6 = 10

So it means the total
members in a group = 10

Now we will find the total
number of groups from the
        given data

Since 102 girls are available
   So total groups number =

$$\frac{102}{6} = \boxed{17}$$

So it means total
number of groups = 17

Now Boys 'w required for st
will be

$$4 \times 17 = \boxed{68}$$

Hence 68 boys are required
for 17 groups.

Q6 Answer (d):

Given Data

Ratio of Present ages of A and B =
$$6:7$$
After 5 years ages ratio =
$$7:8$$

Required Data

Present ages of A and
B = ?

Solution

Let Present age of A $= 6x$ ——(i)
Present age of B $= 7x$ ——(ii)

Now according to the
given condition

$$6x+5 : 7x+5 = 7:8$$

Solving

$$\frac{6x+5}{7x+5} = \frac{7}{8}$$

$$\Rightarrow 8(6x+5) = 7(7x+5)$$

$$\Rightarrow 48x + 40 = 49x + 35$$

$$40 - 35 = 49x - 48x$$

$$= 5 = x \quad \text{or} \quad \boxed{x = 5}$$

Now putting the values in
eq (i) and (ii)

$$A = 6x$$
$$A = 6 + 5 = 30$$
$$\boxed{A = 30}$$

and

$$B = 7x$$
$$= 7 + 5 = 35$$

$$\boxed{B = 35}$$

Hence present
ages are 30 and
35.

Section - II

Q6 AnSWER

Ans (a)   Given Data

3 Candidates
A Recieved = 15000 votes
B Recieved = 10000 votes
C Recieved = 8000 votes

Required

Percentage of total votes
of winning candidates = ?

Solution

Lets find the percentage
of Candidate A.

Formula

According to the
formula given

$$\text{Percentage} = \frac{\text{Candidate A votes}}{\text{Total votes}} \times 100 \quad (i)$$

Total votes = Votes of A + Votes of
B + votes of C
= 15000 + 10000 + 8000 = 30000

Now putting the values in
the eq (i) we get

$$\text{Percentage of Candidate (A)} = \frac{15000}{33000} \times 100$$

Hence percentage of votes
of candidate $\boxed{A = 45\%}$
— (a)

Now finding percentage
of votes of B candidates.

B - Percentage $= \dfrac{B \cdot votes}{Total \ votes} \times 100$

$= \dfrac{10000}{30000} \times 100$

$\boxed{B - Percentage = 30 \cdot 3}$ — (b)

Now finding Percentage of votes
of C - Candidate.

C - Percentage $= \dfrac{C - votes}{Total \ votes} \times 100$

$= \dfrac{8000}{30000} \times 100$

$\boxed{C - Percentage = 24 \cdot 4}$ — (c)