DI Info Chart Questions for IBPS Clerk, IBPS PO Pre, IBPS SO Pre, SBI Clerk, SBI PO Pre and RRB Scale I Pre

DI Info Chart 5

Direction: Study the following information carefully and answer the questions given beside.

The census officers provided the data regarding changes in population of three major towns for three years. Population of town A was 180600 in the third year and it increased 5% and 7.5% in second and third year respectively. Population of town B increased by 25% in second year and in the second year it was equal to 150% of the population of town A in first year. After taking population control measures, town B succeeds in controlling population as growth rate in third year was half of that of previous year. The area of town C is 1250 km2 and population density for second year was 250. Growth rate for town C was 11.11% and 10% for second and third year respectively.

Note: Population density is calculated as Total population ÷ Total area.

1. Population of town B in third year exceed by how much compare to population of town A in second year?

A. 110000 B. 107500 C. 102000

D. 105250 E. None of these

2. The average population of town B for three years forms what percentage of average population of town C for three years?

A. 73.15% B. 74.88% C. 78.44%

D. 76.28% E. None of these

3. For town B, male to female ratio for the last two years was 7 : 5 and literate male and illiterate male are in the ratio of 4 : 1 for same years. Find the ratio between illiterate male in second year and literate male in third year.

A. 8 : 9 B. 4 : 9 C. 9 : 2

D. 2 : 9 E. 7 : 2

4. Refer the data provided in previous question, by what percentage the number of illiterate male in third year for town B less than female in third year for town B?

A. 72%
B. 75%
C. 69%
D. 70.50%
E. 74.25%

5. For the third year, if 3/8th part of population of A town are not above 20 years old, 33% of population of B town are below 20 years old and 70% of population of C town are above 20 years old, how much population of three towns are above 20 years for third year?

A. 530440
B. 545400
C. 543300
D. 534400
E. Can't be determined

Correct answers:

1	2	3	4	5
C	B	D	A	D

Explanations:

1.

Let the Population of Town A in first year be 100.

Thus, population of town A in third year = 105% of 107.50% of 100 = 112.875 i.e. 180600.

∴ Population of Town A in first year

$= \frac{180600 \times 100}{112.875} = 160000$

Thus, population of town A in second year = 105% of 160000 = 168000

Population of town B in second year = 150% of 160000 = 240000

As given, growth rate of population for town B in the second year was 25%, thus population in first year

$= \frac{240000 \times 100}{125} = 192000$

As growth year became half of previous years' growth rate, Population of town B in third year

= 240000 + [240000 × 12.50% (half of 25%)] = 240000 + 30000 = 270000

For town C, population in second year = Population density × Area = 250 × 1250 = 312500

As growth rate for town C was 11.11% and 10% for second and third year respectively, population of C in first year

$= \frac{312500 \times 100}{111.11} = 281250$

Population of C in third year = 110% of 312500 = 343750.

Thus, we can present above data in tabular form as follows:

Towns	**Population**		
	First Year	**Second Year**	**Third Year**
A	160000	168000	180600
B	192000	240000	270000
C	281250	312500	343750

Required difference = Population of town B in third year – Population of town A in second year

= 270000 – 168000 = 102000

Hence, option C is correct.

2.

Average population of town B

$= \frac{192000 + 240000 + 270000}{3} = \frac{702000}{3} = 234000$

Average population of town C

$= \frac{281250 + 312500 + 343750}{3} = \frac{937500}{3} = 312500$

$\therefore$ Reqd. % $= \frac{234000}{312500} \times 100 = 74.88\%$

Hence, option B is correct.

3.

Number of male in town B for Second year

$= \frac{7 \times 240000}{12} = 140000$

Number of male in town B for third year

$= \frac{7 \times 270000}{12} = 157500$

Number of illiterate male in second year

$= \frac{1 \times 140000}{5} = 28000$

Number of literate male in third year

$= \frac{4 \times 157500}{5} = 126000$

Thus, required ratio = 28000 : 126000 i.e. 2 : 9

Hence, option D is correct.

4.

Number of illiterate male in third year for town B

$= \frac{1 \times 157500}{5} = 31500$

Number of female in third year for town B

$= \frac{5 \times 270000}{12} = 112500$

$\therefore$ Reqd. % $= \frac{112500 - 31500}{112500} \times 100 = 72\%$

Hence, option A is correct.

5.

Population above 20 years in town A

$= 180600 - \frac{180600 \times 3}{8} = 112875$

Population above 20 years in town B = (100 – 33)% of 270000 = 180900

Population above 20 years in town C = 70% of 343750 = 240625

Thus, required total = 112875 + 180900 + 240625 = 534400

Hence, option D is correct.