Date Interpretation Table Chart Questions for IBPS PO Pre, IBPS RRB Scale I Pre, SBI PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams.

DI Table Chart Quiz 94

Directions: Study the following table chart carefully and answer the questions given below:

The following tables gives the information about the percentage change in the population of five cities, A, B, C, D, and E from 2015 to 2017

City	From 2015 to 2016	From 2016 to 2017
A	– 20	+20
B	+15	– 10
C	+25	+ 25
D	– 10	+ 40
E	+ 40	– 20

1. If the population of city A in the year 2015 was 10,000 then what was its population in the year 2017?

A. 10400 B. 9600 C. 10600 D. 10200 E. None of these

2. In the year 2016, the ratio of the population of city E to the population of city C was 4 : 5. Then what was the respective ratio of their population in the year 2017?

A. 64 : 125 B. 125 : 64 C. 1 : 2 D. 1 : 3 E. None of these

3. Suppose, in the year 2016, the population of all the cities was equal, then in the year 2015 the population of city D was approximately what percent more than the population of city C?

A. 42% B. 33% C. 35% D. 39% E. None of these

4. What is the total percentage increase in the population of city E from the year 2015 to 2017?

A. 12% B. 15% C. 18% D. 21% E. None of these

5. In the year 2015, the population of city C was 25% more than the population of city D, then in the year 2017 the population of city C will be what percent more than the population of city D?

A. 51% B. 59% C. 55% D. 53% E. None of these

Correct Answers:

1	2	3	4	5
B	A	D	A	C

Explanations:

1. The population of city A decreased by 20% from 2015 to 2016 and again it increased by 20% from 2016 to 2017

The population of city A in 2017 = $10{,}000 \times \frac{80}{100} \times \frac{120}{100} = 9600$

Hence, option B is correct.

2. Let the population of city E in the year 2016 = 4x then in the year 2017 it will be decreased by 20%

In the year 2017 = (100 – 20)% of 4x = 80% of 4x = $80 \times \frac{4x}{100}$

And the population of city C in the year 2016 = 5x then in the year 2017

= (100 + 25)% of 5x = $125 \times \frac{5x}{100}$

The reqd. ratio = $80 \times \frac{4x}{100} : 125 \times \frac{5x}{100} = 64 : 125$

Hence, option A is correct.

3. Let in the year 2016, the population of all the cities were equal = x

Let population of city C in the year 2015 = a then (100 + 25)% of a = x

$a = \frac{100x}{125} = \frac{4x}{5}$

Let the population of city D in the year 2015 = b then (100 – 10)% of b = x

$b = \frac{100x}{90} = \frac{10x}{9}$

The reqd. % = $\frac{\frac{10x}{9} - \frac{4x}{5}}{\frac{4x}{5}} \times 100 = \frac{14x}{45} \times \frac{5}{4x} \times 100$

= $\frac{350}{9}$ = 38.89% = approximately 39%

Hence, option D is correct.

4. Let the population of city E in the year 2015 = x

Then the population of city E in the year 2016 will become = (100 + 40)% of x = 1.4x

In the year 2017 = (100 – 20)% of 1.4x = 80% of 1.4x = 1.12x

The reqd. % increase = $\frac{(1.12x - x) \times 100}{x}$ = 12%

Hence, option A is correct.

Alternate method:

By using successive increase/decrease in percentage-

$40 - 20 - (40 \times \frac{20}{100}) = 20 - 8 = 12\%$

5. In the year 2015, let the population of city D = 4x then the population of city C = 125% of 4x = 5x

In the year 2017, the population of city C will become = $\frac{125}{100} \times \frac{125}{100} \times 5x = \frac{125x}{16} = 7.8125x$

(From 2015 to 2016 it was increased by 25% again from 2016 to 2017 it was increased by 25%)

In the year 2017, the population of city D will become = $\frac{90}{100} \times \frac{140}{100} \times 4x = \frac{126x}{25} = 5.04x$

(from 2015 to 2016 it was decreased by 10% and from 2016 to 2017 it was increased by 40%)

The reqd. % = $\frac{7.8125x - 5.04x}{5.04x} \times 100$ = approximately 55%

Hence, option C is correct.