

# Most Important Quantitative Aptitude Questions

## SBI PO Prelims Exam 2019

1. A bus travels at the speed of 49 kmph and reaches its destination in 7 hours. What is the distance covered by the bus ?

- (A) 343 km                      (B) 283 km  
(C) 353 km                      (D) 245 km  
(E) 340 km

2. 15 persons complete a job in 3 days. How many days will 10 persons take to complete the same job ?

- (A) 2                                      (B) 5  
(C)  $2\frac{2}{3}$                                       (D)  $3\frac{1}{4}$   
(E)  $4\frac{1}{2}$

3. What should replace both the question marks in the following equation ?

$$\frac{?}{84} = \frac{189}{?}$$

- (A) 126                                      (B) 124  
(C) 130                                      (D) 132  
(E) 136

4. In how many different ways can the letters of the word 'ABILITY' be arranged ?

- (A) 5040                                      (B) 720  
(C) 1260                                      (D) 2420  
(E) None of these

5. The population of a town is 198000. It increases by 7% in the 1st year and decreases by 5% in the 2nd year. What is the population of the town at the end of 2 years ?

- (A) 211860                                      (B) 201267  
(C) 222453                                      (D) 198900  
(E) None of these

6. If the numerator of a fraction is increased by 200% and the denominator is increased by 160%, the resultant fraction is  $\frac{7}{13}$ . What is the original fraction ?

- (A)  $\frac{1}{5}$                                       (B)  $\frac{2}{5}$

- (C)  $\frac{8}{15}$                       (D)  $\frac{5}{7}$   
 (E) None of these

**Directions (Q. 7-10):** What should come in place of the question mark (?) in the following number series ?

7. 15 19 ? 27 31

- (A) 21                              (B) 23  
 (C) 20                              (D) 25  
 (E) None of these

8. 106 ? 94 88 82

- (A) 102                              (B) 112  
 (C) 96                                (D) 100  
 (E) None of these

9. 17 19 16 20 ? 21

- (A) 14                              (B) 17  
 (C) 15                              (D) 19  
 (E) None of these

10. 2 3 6 15 45 ?

- (A) 135                              (B) 90  
 (C) 75                                (D) 145  
 (E) None of these

**Directions (Q. 11-15):** Study the following table carefully to answer these questions:

Table giving percentage of unemployed male and female youth and the total population for different states in 2009 and 2010.

State	2009			2010		
	M	F	T	M	F	T
A	12	15	32	7	8	35
B	8	7	18	10	9	20
C	9	10	28	10	12	34
D	10	6	24	8	8	30
E	6	8	30	7	6	32
F	7	5	28	8	7	35

M = Percentage of unemployed Male youth over total population  
 F = Percentage of unemployed Female youth over total population  
 T = Total population of the state in lakhs

11. What was the total number of unemployed youths in State A in 2010?  
 (A) 2,20,000                      (B) 3,25,000  
 (C) 5,20,000                      (D) 5,25,000  
 (E) None of these

12. How many female youths were unemployed in State D in 2009?

- (A) 14,400 (B) 1,44,000  
(C) 1,40,000 (D) 14,000  
(E) None of these

13. Number of unemployed male youths in State A in 2009 was what per cent of the number of unemployed female youths in State E in 2010?

- (A) 66 (B) 50  
(C) 200 (D) 133  
(E) None of these

14. What was the difference between the number of unemployed male youths in State F in 2009 and the number of unemployed male youths in State A in 2010?

- (A) 70,000 (B) 45,000  
(C) 68,000 (D) 65,000  
(E) None of these

15. What was the respective ratio between unemployed male youths in State D in 2009 and the unemployed male youths in State D in 2010?

- (A) 1 : 1 (B) 2 : 3  
(C) 3 : 2 (D) 4 : 5  
(E) None of these

**Direction (16-20):- What will come in place of the question mark (?) in the following number series?**

16. 35, 53, 89, 143, ?

- (A) 240 (B) 267  
(C) 256 (D) 286  
(E) 215

17. 2, 7, 20, 45, 86, ?

- (A) 147 (B) 145  
(C) 157 (D) 164  
(E) 152

18. 4, 128, 8, 64, 12, 32, 16, ?

- (A) 15 (B) 64  
(C) 34 (D) 8  
(E) 16

19. 11.2, 19.7, 28.2, 36.7, ?

- (A) 45.7 (B) 45.2  
(C) 35.2 (D) 62.7  
(E) 73.4

20. 14, 16.8, 20.16, 24.192, ?

- (A) 26.5782                      (B) 27.254  
(C) 29.0304                      (D) 30.5750  
(E) 32.1202

**Direction (21-25):- Study the table and answer the given questions**

NO. OF Smartphone users				
Year	Android	Windows	IOS	Java
2005	2400	3250	1580	4250
2006	2560	3450	1850	4500
2007	2820	3520	2040	4820
2008	3200	3280	2150	4610
2009	3580	3050	2200	4420

- 21.** The no. of Android phone users in 2008 is approximately what percent of the total Android phone users in the given years?  
(A) 27%                      (B) 12%  
(C) 15%                      (D) 22%  
(E) None of these
- 22.** In 2007, what is the ratio of the no. of Windows phone users to the total no. of all phone users in that year?  
(A) 7 : 19                      (B) 11 : 23  
(C) 5 : 11                      (D) 4 : 15  
(E) None of these
- 23.** In which year, was the difference between IOS and Java phone users second maximum?  
(A) 2005                      (B) 2006  
(C) 2007                      (D) 2008  
(E) None of these
- 24.** In which year, was the total no. of Smartphone users the second maximum?  
(A) 2007                      (B) 2009  
(C) 2008                      (D) 2006  
(E) None of these
- 25.** What is the average no. of Smartphone users per year in the given duration?  
(A) 10480                      (B) 12706  
(C) 11420                      (D) 12210  
(E) None of these

## Answers With Explanation:-

1. (A)

$$\begin{aligned}\text{Distance covered} &= \text{Speed} \times \text{Time} \\ &= 49 \times 7 = 343 \text{ km.}\end{aligned}$$

2. (E)

$\therefore$  15 men can do 1 work in 3 days.  
 $\therefore$  1 man can do 1 work in  $3 \times 15$  days.

$\therefore$  10 men can do the same work in  $\frac{3 \times 15}{10}$

$$= \frac{9}{2} = 4\frac{1}{2} \text{ days}$$

3. (A)

$$\frac{?}{84} = \frac{189}{?}$$

$$\text{or, } ?^2 = 84 \times 189$$

$$\text{or, } ?^2 = 21 \times 4 \times 21 \times 9$$

$$\text{or, } ?^2 = 21^2 \times 2^2 \times 3^2$$

$$\therefore ? = 21 \times 2 \times 3 = 126$$

4. (E)

The word 'ABILITY' has seven letters in which 'I' comes twice.

$$\therefore \text{Number of arrangements} = \frac{7!}{2!}$$

$$= \frac{7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1}{2 \times 1} = 2520$$

5. (B)

Population of the town after 2 years

$$\begin{aligned} &= 198000 \left(1 + \frac{7}{100}\right) \left(1 - \frac{5}{100}\right) \\ &= \frac{198000 \times 107 \times 95}{100 \times 100} = 201267 \end{aligned}$$

6. (E)

Let the original fraction be  $\frac{x}{y}$

According to the question,

$$\frac{\frac{300x}{100}}{\frac{260y}{100}} = \frac{7}{13} \Rightarrow \frac{30x}{26y} = \frac{7}{13}$$

$$\therefore \frac{x}{y} = \frac{7}{13} \times \frac{26}{30} = \frac{7}{15}$$

7. (B)

The given number series is based on the following pattern:

$$\begin{array}{ll} 15 + 4 = 19 & 19 + 4 = 23 \\ 23 + 4 = 27 & 27 + 4 = 31 \end{array}$$

8. (D)

$$106 \quad -6 \quad 100 \quad -6 \quad 94 \quad -6 \quad 88 \quad -6 \quad 82$$

9. (C)

The given number series is based on the following pattern:

$$\begin{array}{ll} 17 + 2 = 19 & 19 - 3 = 16 \\ 16 + 4 = 20 & 20 - 5 = 15 \\ 15 + 6 = 21 & \end{array}$$

10. (E)

The given number series is based on the following pattern:

$$\begin{array}{ll} 2 \times 1.5 = 3 & 3 \times 2 = 6 \\ 6 \times 2.5 = 20 & 15 \times 3 = 45 \\ 45 \times 3.5 = 157.5 & \end{array}$$

11. (D)

Required number = (7 + 8)% of total population

$$= \frac{15}{100} \times 35 \text{ lakh} = 5.25 \text{ lakh} = 525000$$

12. (B)

Number of unemployed female youths in State D in 2009

$$= \frac{6 \times 24}{100} \text{ lakh} = 1.44 \text{ lakh} = 144000$$

13. (C)

Number of unemployed male youths in State A in 2009

$$= \frac{12 \times 32}{100} = 3.84 \text{ lakh}$$

Number of unemployed female youths in State E in 2010

$$= \frac{6 \times 32}{100} = 1.92 \text{ lakh}$$

$$\therefore \text{Required percentage} = \frac{3.84}{1.92} \times 100 = 200$$

14. (E)

Number of unemployed male youths in State F in 2009

$$= \frac{7 \times 28}{100} = 1.96 \text{ lakh}$$

Number of unemployed male youths in State A in 2010

$$= \frac{7 \times 35}{100} = 2.45 \text{ lakh}$$

$$\therefore \text{Required difference} = (2.45 - 1.96) \text{ lakh} \\ = 0.49 \text{ lakh} = 49000$$

15. (A)

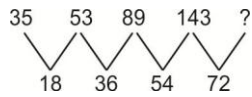
Number of unemployed youths in State D in

$$\text{Year 2009} = \frac{10 \times 24}{100} = 2.4 \text{ lakh}$$

$$\text{Year 2010} = \frac{8 \times 30}{100} = 2.4 \text{ lakh}$$

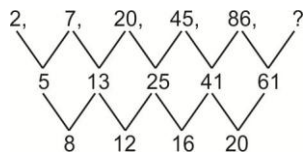
$$\text{Required ratio} = 2.4 : 2.4 = 1 : 1$$

16. (E)



$$143 + 72 = 215$$

17. (A)



$$86 + 61 = 147$$

18. (E)

Alternating series

$$4 \times 2 = 8$$

$$4 \times 3 = 12$$

$$4 \times 4 = 16$$

$$128 \div 2 = 64$$

$$64 \div 2 = 32$$

$$32 \div 2 = 16$$

19. (B)

$$11.2 + 8.5 = 19.7$$

$$19.7 + 8.5 = 28.2$$

$$28.2 + 8.5 = 36.7$$

$$36.7 + 8.5 = 45.2$$

20. (C)

$$14 \times 1.2 = 16.8$$

$$16.8 \times 1.2 = 20.16$$

$$20.16 \times 1.2 = 24.192$$

$$24.192 \times 1.2 = 29.0304$$

21. (D)

$$\frac{3200}{14560} \times 100 \approx 22$$

22. (D)

$$3520 : 13200 = 4 : 15$$



23. (A)

2005	$4250 - 1580 = 2670$
2006	$4500 - 1850 = 2650$
2007	$4820 - 2040 = 2780$
2008	$4610 - 2150 = 2460$
2009	$4420 - 2200 = 2220$

24.(C)

2005 total users = 11480  
2006 total users = 12360  
2007 total users = 13200  
2008 total users = 13240  
2009 total users = 13250

25. (B)

$$\text{Grand total} = \frac{11480 + 12360 + 13200 + 13240 + 13250}{5}$$

$$= \frac{63530}{5} = 12706$$



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