

# SBI PO 2019

---

Imp. 35 Quantitative Aptitude Ques



1. **Direction:** The question given below contains a statement followed by **Quantity I** and **Quantity II**. Find the relationship among these quantities and mark your answer accordingly  
 1. The average of marks obtained by 138 candidates was 70.  
 Quantity 1: If the average marks of the passed candidates were 87 and that of the failed candidates was 18, then the number of those candidates, who passed the examination was:  
 Quantity 2: If the average marks of the failed candidates were 66 and that of the passed candidates was 82.5, then the number of those candidates, who failed the examination, was:  
 A. Quantity I > Quantity II  
 B. Quantity I < Quantity II  
 C. Quantity I ≥ Quantity II  
 D. Quantity I ≤ Quantity II  
 E. Quantity I = Quantity II or the relation cannot be determined
2. **Direction:** Each question below contains a statement followed by Quantity I and Quantity II. Find both to find the relationship among them. Mark your answer accordingly.  
 X and Y started a business by investing INR 27500 and INR 11000 respectively. The condition of partnership is that Y got INR 150 per month for the management of the business. After receiving 4% interest on the capital, annual profit has distributed in the ratio of their investment. If the annual profit is INR6140.  
**Quantity I:** Find the profit received by Y  
**Quantity II:** Find the profit received by X  
 A. Quantity I > Quantity II  
 B. Quantity I < Quantity II  
 C. Quantity I ≥ Quantity II  
 D. Quantity I ≤ Quantity II  
 E. Quantity I = Quantity II, No relation
3. **Direction:** Find the appropriate relation for quantity1 and quantity2 in the following question:

- Quantity 1: On INR 2850 invested @simple interest at the rate of 7% per annum, INR 997.5 is obtained as interest in certain years. In order to earn INR 2052 as interest on INR 4320 in the same number of years, what should be the rate of simple interest?  
 Quantity 2: Akhil borrowed INR 4980 from Shivam at simple interest. After 5 years, Shivam received INR 2290.8 more than the amount given to Akhil on loan. The rate of interest was?  
 A. Quantity 1 > Quantity 2  
 B. Quantity 1 < Quantity 2  
 C. Quantity 1 ≥ Quantity 2  
 D. Quantity 1 ≤ Quantity 2  
 E. Quantity 1 = Quantity 2, No relation
4. **Direction:** Find the correct relationship between the given quantities:  
**Quantity I.** Age of Z if 25 is the sum of ages of X, Y and Z and X is 17 years younger than Z who is thrice as old as Y.  
**Quantity II.** Speed of a boat in standing water is 9 kmph and the speed of the stream is 1.5 kmph. Atharva rows to a place at a distance of 105 km and comes back to the starting point. The total time taken by him is  
 A. Quantity I > Quantity II  
 B. Quantity I ≥ Quantity II  
 C. Quantity I < Quantity II  
 D. Quantity I ≤ Quantity II  
 E. Quantity I = Quantity II or the relation cannot be determined
  5. **Direction:** The question given below contains a statement followed by **Quantity I** and **Quantity II**. Find the relationship among these quantities and mark your answer accordingly  
 Quantity I: The average percentage of 5 students increases by 3 marks when a new girl comes in place of one of them who had scored 65% marks. What might be the score of the new girl (Maximum Marks = 100)  
 Quantity II. The present age of A is half that of B. After 5 years, the ratio of A's age to that of B's age will be 6:11. Then the present age of B will be



**FREE TEST**  
**SBI PO COMBO EXAM**  
 ATTEMPT NOW

- A. Quantity I > Quantity II  
 B. Quantity I ≥ Quantity II  
 C. Quantity I < Quantity II  
 D. Quantity I ≤ Quantity II  
 E. Quantity I = Quantity II or the relation cannot be determined
6. **Directions:** In the following question, two equations numbered I and II are given. You have to solve both the equations and answer the question.  
 I.  $4x + 7y = 209$   
 II.  $12x - 14y = -38$   
 A.  $x < y$                       B.  $x > y$   
 C.  $x \leq y$                       D.  $x \geq y$   
 E.  $x = y$  or the relationship cannot be established
7. **Directions:** In the following questions two equations numbered I and II are given. You have to solve both the equations and Give answer  
 I.  $5a^{15} (a^{-12}) = 320$   
 II.  $\frac{1}{24} b^{13} = \frac{1}{192} b^{15}$   
 A.  $a < b$   
 B.  $a > b$   
 C.  $a = b$  or relationship cannot be established  
 D.  $a \geq b$   
 E.  $a \leq b$
8. **Directions:** In the following question two equations numbered I and II are given. You have to solve both the equations and answer the question.  
 I.  $p^2 + 13p + 40 = 0$   
 II.  $q^2 + 7q + 12 = 0$   
 A.  $p = q$  or If no relation can be decide between p and q.  
 B.  $p > q$   
 C.  $q > p$   
 D.  $p \geq q$   
 E.  $p \leq q$
9. **Directions:** In the following question two equations numbered I and II are given. You have to solve both the equations and answer the question.

- I.  $p = (10)^2$   
 II.  $q^2 + q - 9900 = 0$   
 A.  $p = q$  or If no relation can be decide between p and q.  
 B.  $p > q$   
 C.  $p$   
 D.  $p \geq q$   
 E.  $p \leq q$
10. **Direction:** In the following question, there are two equations. Solve the equations and answer accordingly.  
 I.  $x^2 - 24x + 108 = 0$   
 II.  $y = \sqrt[3]{5832}$   
 A.  $x \geq y$                       B.  $x \leq y$   
 C.  $x < y$                       D.  $x > y$   
 E.  $x = y$ , or relationship between x and y can't be established.
11. **Directions:** In the questions, a number series is given. Find out the missing number.  
 1, 5, 9, 17, 25, ?, 49  
 A. 35                              B. 45  
 C. 37                              D. 42  
 E. None of the above
12. **Directions:** What should come at the place of question mark (?) in the following number series?  
 2, 6, 25, 96, 285, ?  
 A. 572                              B. 684  
 C. 486                              D. 568  
 E. None of these
13. **Direction:** What will come in place of the question mark (?) in the following number series?  
 5, 7, 13, 25, 45, ?  
 A. 67                              B. 75  
 C. 65                              D. 55  
 E. None of these
14. **Direction:** What will come in place of the question mark (?) in the following number series?  
 120, 15, 105, 17.5, 87.5, ?  
 A. 18.5                              B. 19.5  
 C. 21.875                              D. 17.5  
 E. 90



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**

15. **Directions:** What will come in place of the question mark (?) in the following number series?  
1, 3, 9, 31, ?, 651  
A. 97                                  B. 127  
C. 129                                 D. 109  
E. None of these
16. **Direction:** Find the appropriate relation for quantity1 and quantity2 in the following question:  
Quantity 1:  $x = \sqrt{9610000}$   
Quantity 2: Divide INR 6770 between Aakash and Niharika, so that Aakash's share at the end of 7 years may equal Niharika's share at the end of 9 years, compound interest being at 8%.  
A. Quantity 1 > Quantity 2  
B. Quantity 1 < Quantity 2  
C. Quantity 1 ≥ Quantity 2  
D. Quantity 1 ≤ Quantity 2  
E. Quantity 1 = Quantity 2, No relation
17. **Directions:** Find the appropriate relation for quantity 1 and quantity 2 in the following question:  
An artificial kund is filled by three pipes with uniform flow. The first two pipes operating simultaneously fill the kund at the same time during which the kund is filled by the third pipe alone. The second pipe fills the kund 5 hours faster than the first pipe and 4 hours slower than the third pipe.  
Quantity 1: The time required by the first pipe?  
Quantity 2: Time taken by all three pipes to fill the Kund simultaneously  
A. Quantity 1 > Quantity 2  
B. Quantity 1 ≥ Quantity 2  
C. Quantity 1 < Quantity 2  
D. Quantity 1 ≤ Quantity 2  
E. Quantity 1 = Quantity 2 or no relation.
18. Find the appropriate relation among the given quantities:  
Quantity I. Profit percent of a dishonest shopkeeper, who mixes 26 kg of rice at Rs. 20 per kg with 30 kg of rice of other variety at Rs. 36 per kg and sells the mixture at Rs. 30 per kg.  
Quantity II. Average weight of all boys of a class in which the average weight of 16 boys is 50 kg and that of the remaining 8 boys is 45 kg.  
A. Quantity I > Quantity II  
B. Quantity I ≥ Quantity II  
C. Quantity I < Quantity II  
D. Quantity I ≤ Quantity II  
E. Quantity I = Quantity II or the relation cannot be determined
19. **Directions:** Find the correct relationship between the given quantities-  
**Quantity I:** Son's age at the time of release of his father if his father, Ramesh was sentenced to imprisonment for 28 years. At the time of his release, his son was 4 more than half his age. 4 years before the sentence, he was 6 times his son's age.  
**Quantity II:** Average of the present ages of Deepak and Divyam if - their present ages are in the ratio  $41\frac{9}{11} : 32\frac{6}{7}$ .  
Also, 3 years hence, the ratio of their ages will be 5 : 4.  
A. Quantity I ≥ Quantity II  
B. Quantity I < Quantity II  
C. Quantity I > Quantity II  
D. Quantity I ≤ Quantity II  
E. Data inadequate or No relation
20. **Direction:** Find the correct relationship between the given quantities:  
How many trees can be put in Circular Park whose circumference is 924cm  
**Quantity 1:** allowing 42cm<sup>2</sup> for each tree  
**Quantity 2:** allowing 49cm<sup>2</sup> for each tree  
A. Quantity 1 > Quantity 2  
B. Quantity 1 < Quantity 2  
C. Quantity 1 ≥ Quantity 2  
D. Quantity 1 ≤ Quantity 2  
E. Quantity 1 = Quantity 2 or no relation
21. The average age of Ram and Shyam is 35 years. if Rohan replaces Ram, the average age becomes 32 years and if Rohan replaces Shyam, then the



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**

average age becomes 38 years. If the average age of Piyush and Ankit half of the average age of Ram, Shyam and Rohan, then the average age of all the five people is:

- A. 27 years                      B. 28 years
  - C. 35 years                     D. 39 years
  - E. None of these
22. Average age of a family of 4 is 25 years. Average age of the family excluding the youngest member is 30 years and Average age of the family excluding the oldest member is 20 years. Out of the two members left the age of the elder one is 10 less than twice the age of the other. Find the product of the ages of the members of the family.
- A. 240000                      B. 390625
  - C. 250000                     D. 252525
  - E. None of these
23. Rachita, Rohit and Shubham become partners in a business. They invested Rs. 25000, Rs. 30000 and Rs. 15000 respectively. The profit is shared in proportion to the investments, but Rachita also gets 30% of the profit as salary for managing the business. At the end of the financial year, if Rachita gets Rs. 1200 more than Rohit and Shubham together, what is Shubham's share?
- A. Rs. 1000                    B. Rs. 1800
  - C. Rs. 850                     D. Rs. 1500
  - E. None of these
24. Mr Sonkar spends 50% of his monthly income on household items and out of the remaining he spends 50% on transport, 25% on entertainment, 10% on sports and the remaining amount of Rs 900 is saved. What is Mr Sonkar's annual income?
- A. Rs 121000
  - B. Rs 12000
  - C. Rs 144000
  - D. Cannot be determined
  - E. None of these
25. A bus travels at a speed of 80kmph. While traveling from Bus stop A to Bus stop B, which are 64 km apart, it gets stuck in a traffic jam and ends up

covering the distance in an hour. For how much time was the bus stuck in the jam?

- A. 12 mins                      B. 14 mins
- C. 16 mins                     D. 18 mins
- E. 20 mins

**Direction (26-30):** Read the following information carefully and answer the questions that follow:

Given below is the table shows five types of laptops sold by two seller (X and Y). Table shows cost price, Profit percentage and Market price of the laptops.

Seller→ Laptops ↓	X			Y		
	CP	Profit%	MP	CP	Profit%	MP
A	—	—	—	—	25%	—
B	—	20%	25,000	—	12%	—
C	—	—	—	—	—	28,000
D	—	20%	—	—	—	—
E	—	35%	—	16,000	30%	—

**Note:**

i) Some data is missing, you have to calculate that data if it is required to answer the question.

ii) Selling price may or may not be equal to M.P.

26. How much percentage C.P. of B laptop sold by seller X is less than MP of E laptop sold by seller Y. If X gave 10% discount on B laptop while seller Y gave 20% discount on E Laptop on M.P? (Approximately)
- A. 20%                              B. 28%
  - C. 35%                              D. 45%
  - E. 72%
27. What is the ratio between C.P. of D sold by seller X to C.P. of A sold by seller Y if M.P. of D sold by X is 44% more than the M.P. of B sold by X and M.P. of A sold by Y is 56.25% more than the M.P. of E sold by Y. [Take S.P. equals to M.P.]
- A. 7 : 13                              B. 14 : 15
  - C. 15 : 14                            D. 13 : 15
  - E. 15 : 13
28. If seller Y sells C laptop at 20% discount, he got Rs. 2400 as profit and if he give 30% discount, he losses Rs. 400 .Then what will be the profit percentage if in total 8 laptop sold by seller Y, '2' laptop at 20% discount and '6' Laptop at 30% discount.



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**



- A. 1.5%                      B. 15%  
 C. 5%                         D. 8%  
 E. 12%
29. If the ratio between S.P. of B and M.P. of C sold by Y is 3 : 4 then what is the average of Cost price of 2 laptops of B bought by X and 6 laptops of B bought by Y if X gave 10% discount of M.P.  
 A. 18,000                      B. 19,000  
 C. 18,500                      D. 18,705  
 E. None of these
30. If the average C.P. of D and E bought by 'X' is 14,000 and average S.P. of D and E by 'X' is 18,000 then what will be the difference between the C.P of D and E laptop bought by seller 'X' ?  
 A. 3,500                        B. 4,000  
 C. 4,500  
 D. Can't be determined  
 E. None of these
31. **Directions:** The following question consists of a question and two statements numbered A and B below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read the question and both the statements and give answer.  
 What is the salary of A in a group of A, B, C, D and E whose average salary is ₹ 65780?  
 A. Total of the salary of B and C is ₹ 88,545.  
 B. Total of the salary of D and E is ₹ 59,020.  
 A. The statement A alone is sufficient to answer the question, but the statement B alone is not sufficient.  
 B. The statement B alone is sufficient to answer the question, but the statement A alone is not sufficient.  
 C. Both statements A and B together are needed to answer the question.  
 D. Either the statement A alone or statement B alone is sufficient to answer the question.  
 E. You cannot get the answer from the statement A and B together, but need even more data.

32. **Direction:** In each of the following question, a question is followed by two or three statements. Read all the statements and find that which statement are required to answer the question and answer accordingly.  
 A and B start walking towards each other simultaneously what is the distance between them when they start?  
**Statement (I):** 20 minutes after crossing each other, they were 1000 m apart.  
**Statement (II):** After crossing each other, A reaches the starting point of B in thrice as much time as B takes to reach the starting point of A  
 A. Only I                        B. Only II  
 C. Either I or II                D. Both I and II  
 E. Neither I nor II
33. **Direction:** The following questions are accompanied by two statements. You have to determine which statement is/are sufficient to answer the questions. Give answer as:-  
 A 31m long rod is cut into three pieces. How long is the longest piece?  
 I. Two pieces are each 1m shorter than the longest piece  
 II. Two pieces of the rod are of the same length.  
 A. Only 1                        B. Only 2  
 C. All of these                 D. either 1 or 2  
 E. None of these
34. **Direction:** The question given below has few statements along with it. You have to determine which of the statement/s is/are sufficient/necessary for answering the question and mark your answer accordingly.  
 Last year Linc company produced a number of Dot pens and sold every unit of it. Total expenses in producing the pens was 10 lakhs plus 10% of the total revenue generated. The company made a profit by selling the pens. Did the company sell more than 2 lakh pens?  
 I. The company's total revenue was greater than 11 lakhs  
 II. Linc earned a revenue of Rs. 5 on selling each Dot pen.



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**

- A. Statement I alone is sufficient
- B. Statement II alone is sufficient
- C. Statement I and II both are alone sufficient
- D. Statement I and II are together sufficient
- E. None of these

35. **Direction:** The question given below has few statements along with it. You have to determine which of the statement/s is/are sufficient/necessary for answering the question and mark your answer accordingly:  
 What will be the ratio between bigger digit to the smaller digit in the two digit number?  
 I. The largest digit is 9.  
 II. The sum of the digits in the number is 5 times their difference.

- A. If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question
- B. If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question
- C. If the data either in statement I alone or in statement II alone are sufficient to answer the question
- D. If the data given in both statements I and II together are not sufficient to answer the question and
- E. If the data in both statements I and II together are necessary to answer the question.

### ANSWERS

1. Ans. B.  
 The average of marks obtained by 138 candidates was 70.  
 $\Rightarrow$  Total marks scored by 138 candidates =  $138 \times 70$   
 $\Rightarrow$  Total marks scored by 138 candidates = 9660  
 Quantity 1:  
 Suppose the number of candidates passed = x  
 The average of the passed candidates was 87 and that of the failed candidates was 18  
 $\therefore 87x + 18(138 - x) = 9660$   
 $\Rightarrow 69x = 9660 - 2484$   
 $\Rightarrow 69x = 7176$   
 $\Rightarrow x = 104$   
 Quantity 2:  
 Suppose the number of candidates failed be = x  
 The average of the passed candidates was 82.5 and that of the failed candidates was 66  
 $\therefore 66x + 82.5(138 - x) = 9660$   
 $\Rightarrow 16.5x = 11,385 - 9660$   
 $= 16.5x = 1725$   
 $\Rightarrow x = 104.5$

Now, comparing  
 $104 < 104.5$   
 Thus, quantity 1 < Quantity 2  
 2. Ans. B.  
 X' s capital = INR 27500  
 $\Rightarrow$  Interest of X on capital =  $\frac{27500 \times 4 \times 1}{100} = \text{INR } 1,100$   
 Y's capital = INR 11,000  
 $\Rightarrow$  Interest of Y on capital =  $\frac{11000 \times 4 \times 1}{100} = \text{INR } 440$   
 Y profit share in 1 year =  $12 \times 150 = \text{INR } 1800$   
 $\therefore$  Total profit of X and Y =  $(1100 + 440 + 1800) = \text{INR } 3340$   
 $\Rightarrow$  Remaining profit =  $6140 - 3340 = 2800$   
 Their profit sharing ratio =  $27500 : 11000 = 5 : 2$   
 Quantity 1:  
 Share of Y in remaining profit =  $\frac{2}{7} \times 2800 = \text{INR } 800$   
 $\Rightarrow$  Total profit of Y =  $440 + 800 + 1800 = \text{INR } 3040$   
 Quantity 2:  
 Share of X in remaining profit =  $\frac{5}{7} \times 2800$



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**

= INR 2000  
⇒ Total profit of X = 1100 + 2000 = INR 3100

Now, comparing  
3040 < 3100

Thus, Quantity 1 < Quantity 2

3. Ans. A.

Quantity 1:

Principal amount = INR 2850

Rate of interest = 7%

Interest = INR 997.5

$$\Rightarrow \text{Time} = \frac{997.5 \times 100}{2850 \times 7} = 5 \text{ years}$$

According to the given information:

New interest = INR 2052

New principal amount = INR 4320

Time = 5 years

$$\Rightarrow \text{Rate of interest} = \frac{2052 \times 100}{5 \times 4320} = 9.5 \%$$

Hence, the rate of interest should be 9.5%

Quantity 2:

Interest = INR 2290.8

Principal amount = INR 4980

Time = 5 years

$$\text{Rate of interest} = \frac{2290.8 \times 100}{4980 \times 5} = 9.2 \%$$

Now, comparing

9.5% > 9.2%

Thus, Quantity 1 > Quantity 2

4. Ans. C.

Quantity I.

Let Y's age be a.

Then Z's age is 3a.

And X's age = 3a - 17.

Now, a + 3a + 3a - 17 = 25

$$\Rightarrow 7a - 17 = 25$$

$$\Rightarrow a = 6$$

Therefore, Z's age = 3(6) = 18 yrs

Thus, quantity I = 18

Quantity II.

Speed upstream = 7.5 kmph and Speed downstream = 10.5 kmph

$$\therefore \text{total time taken} = \frac{105}{7.5} + \frac{105}{10.5} = 24 \text{ hrs}$$

Thus, quantity II = 24

∴ quantity I < quantity II

5. Ans. A.

Quantity I,

Given that the average score of 5 students increases by 3 marks. Then,

The total score increased = (5 x 3) = 15 marks.

Among the 5 one has scored 65 marks and it's replaced by the score of the new pupil.

Then the score of the new pupil = (65 + 15) = 80 marks.

Thus, quantity I = 80

Quantity II.

Let X be A's age, then B's age will be 2X.

After 5 years, their ages will be X+5 and 2X+5 respectively.

Given that the ratio (after 5 Years) is = 6:11

$$\text{i.e., } \frac{6}{11} = \frac{X+5}{2X+5}$$

$$\Rightarrow 6(2X + 5) = 11(X + 5)$$

$$\Rightarrow 12X + 30 = 11X + 55$$

$$\Rightarrow X = 55 - 30 = 25$$

And 2X = 50 years

Thus, quantity II = 50

∴ quantity I > quantity II

6. Ans. E.

$$\text{I. } 4x + 7y = 209 \dots\dots\dots(\text{I})$$

$$\text{II. } 12x - 14y = -38 \dots\dots\dots(\text{II})$$

From Equations (I) and (II)

$$\Rightarrow x = 19 \text{ and } y = 19$$

So x = y.

7. Ans. B.

$$\text{I. } a^{15-12=3} = \frac{320}{5} = 64$$

$$\therefore a = 4$$

$$\text{II. } \frac{1}{b^{15-12}} = \frac{24}{192} \Rightarrow \frac{1}{b^2} = \frac{1}{8}$$

$$\therefore b = \pm 2\sqrt{2}$$

Hence, a > b

8. Ans. C.

$$\text{I. } (p+8)(p+5)$$

$$p = -5, -8$$

$$\text{II. } (q+3)(q+4)$$

$$\Rightarrow q = -3, -4$$

So ∴ q > p

**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**



9. Ans. B.

I.  $p = (10^2) \Rightarrow p = 100$

II.  $(q+100)(q-99) \Rightarrow q = 99, -100$

So  $P > q$

10. Ans. B.

I.  $x^2 - 24x + 108 = 0$

$(x-6)(x-18)$

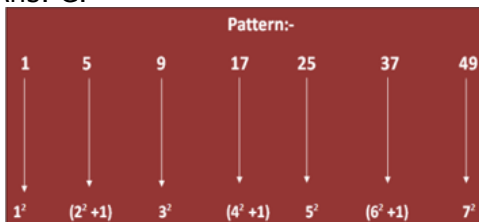
$x = 6, 18$

II.  $y = \sqrt[3]{5832}$

$y = 18$

So  $x \leq y$

11. Ans. C.



12. Ans. D.

The pattern of the given series is

$\Rightarrow 2$

$\Rightarrow 2 \times 6 - 6 = 6$

$\Rightarrow 6 \times 5 - 5 = 25$

$\Rightarrow 25 \times 4 - 4 = 96$

$\Rightarrow 96 \times 3 - 3 = 285$

$\Rightarrow 285 \times 2 - 2 = 568$

$\therefore ? = 568$

13. Ans. B.

The pattern is -

$5 + (1 \times 2) = 7$

$7 + (2 \times 3) = 13$

$13 + (3 \times 4) = 25$

$25 + (4 \times 5) = 45$

$45 + (5 \times 6) = 75$

14. Ans. C.

The pattern is -

$120 / 8 = 15$

$15 \times 7 = 105$

$105 / 6 = 17.5$

$17.5 \times 5 = 87.5$

$87.5 / 4 = 21.875$

15. Ans. C.

The series is  $x + 1 + 2, x + 2 + 3, x + 3 + 4, \dots =$

$129$

16. Ans. B.

Quantity 1:

$x = \sqrt{9610000}$

$\Rightarrow x = \sqrt{100 \times 100 \times 31 \times 31}$

$\Rightarrow x = 3100$

Quantity 2:

Let Aakash share be A

And Niharika's share be N

According to the given information:

Aakash's share at the end of 5 years may equal Niharika's share at the end of 7 years

$\Rightarrow A \left(1 + \frac{8}{100}\right)^7 = N \left(1 + \frac{8}{100}\right)^9$

$\Rightarrow \frac{A}{N} = \left(1 + \frac{8}{100}\right)^2$

$\Rightarrow \frac{A}{N} = \frac{729}{625}$

$\Rightarrow \frac{A}{N} = \frac{729}{625}$

Now, Aakash share =  $\frac{729}{1354} \times 6770 =$  INR 3645

Niharika's share =  $\frac{625}{1354} \times 6770 =$  INR 3125

Now comparing,

$3100 < 3645$

$3100 < 3125$

Thus, Quantity 1 < Quantity 2

17. Ans. A.

Quantity 1:

Let the first pipe alone takes x hours to fill the tank.

$\Rightarrow$  The second and third pipes will take (x-5) and (x-9) hours respectively.

According to the given information:

$\therefore \frac{1}{x} + \frac{1}{x-5} = \frac{1}{x-9}$

$\Rightarrow \frac{(x-5)+x}{x(x-5)} = \frac{1}{x-9}$

$\Rightarrow (x-9)(2x-5) = x^2 - 5x$

$\Rightarrow 2x^2 - 5x - 18x + 45 = x^2 - 5x$

$\Rightarrow x^2 - 18x + 45 = 0$

$\Rightarrow (x-15)(x-3) = 0$

$\Rightarrow x = 15, 3$

The first pipe can take 15 hours to fill the tank.  $\therefore$  3 hours doesn't satisfy the statement.

Quantity 2:

$\therefore$  Time taken by second pipe = x-5

$\Rightarrow$  Time taken by second pipe = 15-5 =



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**

10 hours

∴ Time taken by third pipe = x - 9

⇒ Time taken by third pipe = 15 - 9 = 6 hours

Now,

$$\Rightarrow \text{Net part filled in 1 hour} = \frac{1}{15} + \frac{1}{10} + \frac{1}{6}$$

$$\Rightarrow \text{Net part filled in 1 hour} = \frac{4+6+10}{60}$$

$$\Rightarrow \text{Net part filled in 1 hour} = \frac{20}{60} = \frac{1}{3}$$

∴ The Kund will be full in 3/1 hours if all the pipes are opened simultaneously

Now, comparing

$$15 > 3$$

Thus, Quantity 1 > quantity 2

18. Ans. C.

Quantity I,

$$\text{C.P. of 56 kg rice} = \text{Rs. } (26 \times 20 + 30 \times 36)$$

$$= \text{Rs. } (520 + 1080) = \text{Rs. } 1600$$

$$\text{S.P. of 56 kg rice} = \text{Rs. } (56 \times 30) = \text{Rs. } 1680$$

$$1680$$

$$\therefore \text{gain\%} = \frac{80}{1600} \times 100$$

$$= 5\%$$

Thus, Quantity I = 5

Quantity II,

$$\text{Required average} = \frac{16 \times 50 + 8 \times 45}{16 + 8}$$

$$= \frac{800 + 360}{24} = 48.33$$

Thus, Quantity II = 48.33

∴ quantity II > quantity I

19. Ans. C.

**Quantity I:** Let Ramesh's age at the time of release be 2x.

Then his son's age at that time = x + 4

At the time of sentence, (for 28 yrs)

$$\text{Ramesh's age} = 2x - 28, \text{ son's age} = (x + 4) - 28$$

ATQ, four years before sentence,

$$[(2x - 28) - 4] = 6 [((x + 4) - 28) - 4]$$

$$2x - 32 = 6(x - 28)$$

$$2x - 32 = 6x - 168$$

$$4x = 136 \text{ or, } x = 34$$

Son's age at the time of father's release =

$$x + 4 = 38 \text{ yrs}$$

**Quantity II:** Given,

$$\frac{\text{Deepak's age}}{\text{Divyam's age}} = 41 \frac{9}{11} : 32 \frac{6}{7} = \frac{460}{11} : \frac{230}{7} = \frac{14}{11}$$

Then, let Deepak's & Divyam's ages be 14x & 11x respectively.

ATQ,

$$\frac{14x + 3}{11x + 3} = \frac{5}{4}$$

$$\text{Or, } 4(14x + 3) = 5(11x + 3)$$

$$\text{Or, } 56x + 12 = 55x + 15$$

$$\text{Or, } x = 3$$

$$\text{Average of ages} = (11x + 14x)/2 = 25x/2 = 25 \times 3 / 2$$

$$= 37.5 \text{ yrs}$$

Comparing we have, 38 > 37.5,

So, Quantity I > Quantity II

20. Ans. A.

Formula- Circumference of Park (circle) = 2 π r

$$\text{Circumference given} = 924 \text{ cm}$$

$$\Rightarrow \text{Radius} = \frac{924 \times 7}{22 \times 2} = 147 \text{ cm}$$

∴ Area of the circular park = π r<sup>2</sup>

⇒ Area of the circular

$$\text{park} = \frac{22}{7} \times 147 \times 147 = 67,914 \text{ cm}^2$$

Quantity 1:

Area taken by one tree is given = 42 cm<sup>2</sup>

$$\Rightarrow \text{Number of trees} = \frac{\text{Area of circular park}}{\text{Area of one tree}}$$

$$\Rightarrow \text{Number of trees} = \frac{67914}{42} = 1617$$

Hence, 1617 trees were planted in the circular park.

Quantity 2:

Area taken by one tree is given = 49 cm<sup>2</sup>

$$\Rightarrow \text{Number of trees} = \frac{\text{Area of circular park}}{\text{Area of one tree}}$$

$$\Rightarrow \text{Number of trees} = \frac{67914}{49} = 1386$$

Hence, 1386 trees were planted in the circular park.

Now, comparing

$$1617 > 1386$$

⇒ Quantity 1 > Quantity 2



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**

21. Ans. B.

$$\text{Ram's age} + \text{Shyam's age} = 35 \times 2 = 70 \text{ year}$$

$$\text{Rohan's age} + \text{Shyam's age} = 32 \times 2 = 64$$

$$\text{Ram's age} + \text{Rohan's age} = 38 \times 2 = 76$$

On adding all,

$$2(\text{Ram's} + \text{Rohan's} + \text{Shyam's}) \text{ age} = 70 + 64$$

$$(\text{Ram} + \text{Rohan} + \text{Shyam})\text{'s age} = \frac{210}{2} = 105$$

$$\text{Average of all three} = \frac{105}{3} = 35$$

$$\text{Average of Piyush and Ankit} = \frac{35}{2} = 17.5$$

$$\text{Required answer} = \frac{35 \times 3 + 17.5 \times 2}{5} = 28$$

22. Ans. A.

Let P, Q, R, S be the members of the family and order of ages be  $P < Q < R < S$

$$(P+Q+R+S)/4 = 25$$

$$P+Q+R+S = 100$$

$$(Q+R+S)/3 = 30$$

$$Q+R+S = 90$$

$$\text{Therefore } P = 100 - 90 = 10$$

$$\text{Also } (P+Q+R)/3 = 20$$

$$P+Q+R = 60$$

$$\text{Therefore } S = 100 - 60 = 40$$

$$\text{Now } 10 + Q + R + 40 = 100$$

$$Q + R = 50$$

Also, given

$$R = 2Q - 10$$

Solving for R and Q we get  $R = 30$  &  $Q = 20$ ;

Product of ages =  $10 \times 20 \times 30 \times 40 = 240000$ .

23. Ans. B.

Let the total profit earned by Rachita, Rohit and Shubham be Rs. P

Then Rachita's salary = 30% of P

$$= \frac{30}{100} \times P = \frac{3P}{10}$$

$$\text{The remaining profit} = P - \frac{3P}{10} = \frac{7P}{10}$$

This remaining profit is to be shared among the 3 of them in the ratio of their investements.

$$\text{Rachita's share} : \text{Rohit's share} : \text{Shubham's share} = 25000 : 30000 : 15000$$

$$\therefore \text{Rachita's share} : \text{Rohit's share} : \text{Shubham's share} = 25 : 30 : 15$$

Rachita's share = Profit share + Salary

$$\therefore \text{Rachita's share} = \frac{25}{70} \times \frac{7P}{10} + \frac{3P}{10}$$

$$\therefore \text{Rachita's share} = \frac{385P}{700} = \frac{11P}{20}$$

$$\therefore \text{Rohit's share} = \frac{30}{70} \times \frac{7P}{10}$$

$$\therefore \text{Rohit's share} = \frac{3P}{10}$$

$$\therefore \text{Shubham's share} = \frac{15}{70} \times \frac{7P}{10}$$

$$\therefore \text{Shubham's share} = \frac{3P}{20}$$

Rachita gets Rs. 1200 more than Rohit and Shubham together.

$$\therefore \frac{11P}{20} - \left( \frac{3P}{10} + \frac{3P}{20} \right) = 1200$$

$$\therefore \frac{11P}{20} - \left( \frac{9P}{20} \right) = 1200$$

$$\therefore \frac{2P}{20} = 1200$$

$$\therefore P = \text{Rs. } 12000.$$

Therefore, Shubham's share

$$= \frac{3}{20} \times 12000 = 1800 \text{ Rs.}$$

Hence the correct option is option (B).

24. Ans. C.

Let his monthly income is Rs.x

His expenses = 50% of x + (50 + 25 + 10)% of 50% of x

$$= \frac{x}{2} + \frac{85}{100} \times \frac{x}{2} = \frac{185x}{200}$$

Remaining = Rs.900

Total monthly income = expenses + 900

$$\text{Or, } x = \frac{185x}{200} + 900$$

$$\Rightarrow 900 = \frac{15x}{200}$$

$$\Rightarrow x = \text{Rs. } 12000$$

$$\text{Annual income} = 12 \times 12000 = 144000$$



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**

25. Ans. A.  
 Speed of the bus = 80kmph  
 Distance travelled = 64km  
 Time required to travel 64km =  $64/80$  hr =  $8/10 \times 60$  min = 48 mins.  
 Time taken to travel 64km = 60mins  
 Therefore stoppage time =  $60 - 48 = 12$  mins

26. Ans. B.

$$\text{S. P. of B sold by X} = 25,000 \left[ 1 - \frac{10}{100} \right] = \text{Rs. } 22,500$$

$$\text{S. P.} = 22,500 = \left[ 1 + \frac{20}{100} \right] \times (\text{C. P.})_B$$

$$\Rightarrow (\text{C. P.})_B = \text{Rs. } 18,750$$

$$\text{S. P. of E sold by Y} = 16,000 \left[ 1 + \frac{30}{100} \right] = 20,800$$

$$(\text{M.P.})_E \times \left[ 1 - \frac{20}{100} \right] = 20,800$$

$$(\text{M. P.})_E = 26,000$$

$$\text{Desired percentage} = \frac{26,000 - 18,750}{26,000} \times 100 \approx 27.88\% \approx 28\%$$

27. Ans. E.

$$\text{Desired Ratio} = \frac{\text{C. P. of D by X}}{\text{C. P. of A by Y}}$$

$$\text{M. P. of D} = \left[ 1 + \frac{44}{100} \right] \times 25,000 = 25,000 \times \frac{144}{100}$$

$$\text{C. P. of D} = 25,000 \times \frac{144}{100} \times \frac{100}{120} = 30,000$$

$$\text{M. P. of A} = 16,000 \left[ 1 + \frac{30}{100} \right] \left[ 1 + \frac{56.25}{100} \right] = 16,000 \times \frac{130}{100} \times \frac{156.25}{100}$$

$$\text{C. P. of A} = 16,000 \times \frac{130}{100} \times \frac{156.25}{100} \times \frac{100}{125} = 26,000$$

$$\text{Desired Ratio} = \frac{30,000}{26,000} = \frac{15}{13}$$

28. Ans. A.

$$\text{M. P. after 20\% discount} = 28,000 \left[ 1 - \frac{20}{100} \right] = 22,400$$

$$\text{C. P.} = 22,400 - 2,400 = 20,000$$

Or,

$$\text{M. P. after 30\% discount} = 28,000 \left[ 1 - \frac{30}{100} \right] = 19,600$$

$$\text{C. P.} = 19,600 + 400 = 20,000$$

$$\text{Net profit} = 2 \times 2400 - 6 \times 400 = 2400$$

$$\text{Profit \%} = \frac{2400}{8 \times 20,000} \times 100 = 1.5\%$$

29. Ans. E.

$$\text{S. P. of B by Y} = 28,000 \times \frac{3}{4} = 21,000$$

$$\text{C. P. of B bought by X} = 25,000 \times \frac{90}{100} \times \frac{100}{120} = 18,750$$

$$\text{C. P. of B bought by Y} = 21,000 \times \frac{100}{112} = 18,750$$

$$\text{Desired average} = \frac{2 \times 18,750 + 6 \times 18,750}{8} = 18,750$$

30. Ans. B.

$$\text{Let, C. P. of D} = x$$

$$\text{C. P. of E} = y$$

According to question,

$$\frac{x + y}{2} = 14,000$$

$$\Rightarrow x + y = 28,000 \dots(i)$$

$$\frac{x \times 1.2 + y \times 1.35}{2} = 18,000$$

$$1.2x + 1.35y = 36,000 \dots(ii)$$

On solving (i) and (ii)

$$y = 16,000$$

$$x = 12,000$$

$$\text{Desired difference} = 16,000 - 12,000 = 4,000$$

31. Ans. C.

From the Statements A and B,

$$\begin{aligned} \text{Salary of A} &= 5 \times 65780 - (88545 + 59020) \\ &= 328900 - 147565 \\ &= ₹181335 \end{aligned}$$

So, both statements are required.

32. Ans. E.

Solution: Statement (I)

It says 20 minutes after crossing each other they were 1000 m apart, it doesn't give any information about the question asked.

Statement (II)

It only gives the information of time taken by them but we do not know anything about speed of them hence we cannot find out the distance.

Hence (E) is correct option.



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**

33. Ans. A.

I.  $x + x + x + 1 = 31 \Rightarrow x = 10$ ; Longest

Piece = 11m

II.  $2x + y = 31$ . Not sufficient to give answer

34. Ans. B.

Given, Last year Linc company produced a number of Dot pens and sold every unit of it. Total expenses in producing the pens was 10 lakhs plus 10% of the total revenue generated.

Let the revenue generated be  $r$ .

Company made a profit.

Thus,  $r - (1000000 + 10\% \text{ of } r) > 0$

$0.9r > 1000000$

From statement I, total revenue generated was more than 11 lakhs

We can't be sure as how many pens were sold from this statement.

It could be 1.1 lakh pens of Rs. 10 or 11 lakh pens of Rs. 1

Thus statement 1 alone is not sufficient.

From statement II, revenue earned per pen sold is Rs. 5

Let the number of pens sold be  $n$ .

Revenue =  $5n$

$0.9 \times 5n > 1000000$

$n > 200000/0.9$

$n > 2$  lakhs

Thus, statement II is sufficient to answer the question.

35. Ans. B.

Let the tens and unit digits be  $x$  and  $y$  respectively.

Statement I do not give the answer.

From statement II, we have,

$(x+y) = 5(x-y)$

$(x+y) = 5x-5y$

$4x = 6y$

$x/y = 6/4 = 3/2$

Therefore the required ratio =  $x/y = x:y = 3:2$

Here, the data in Statement II alone are sufficient to find the answer, while the data in Statement I alone are not sufficient.

Hence the answer is option (B).



**FREE TEST**  
**SBI PO COMBO EXAM**

**ATTEMPT NOW**





# **SBI PO Combo 2019**

## Online Test Series

- 1. Based on the Latest Exam Pattern**
- 2. Available in Hindi & English**
- 3. All India Rank & Performance Analysis**
- 4. Detailed Explanation of Solutions**
- 5. Available on Mobile & Desktop**

