



Bipin Nambiar
(SBI PO 2018)



Shiraz Khan
(SBI Clerk 2018)



Kuldeep Yadav
(SBI PO 2018)



Rajat Saxena
(IBPS Clerk 2018)



Anupam Tyagi
(IBPS PO 2018)

FRIENDS!
WE USED **TESTZONE**
AND CRACKED BANK EXAMS

बैंक परीक्षाओ के लिए निश्चित
रूप से सर्वश्रेष्ठ मॉक
टेस्ट सीरीज

IT'S YOUR TURN NOW
TAKE A **FREE** MOCK TEST



Smartkeeda
The Question Bank

Mixed Maths Questions for SBI PO Pre, IBPS PO Pre, IBPS Clerk Mains and SBI Clerk Mains Exams.

Word Problems Quiz 3

Direction: Study the following questions carefully and choose the right answer.

1. A sum of Rs. 10000 was invested in a scheme. The rate of simple interest offered for three years was 6%, 9% and 5% per annum respectively. After three years, the whole amount was withdrawn and reinvested in a scheme which offered an interest rate of 20% compounded annually for 3 years. What is the total interest earned during the six year period?

- A. 8924 B. 10736 C. 12468 D. 13644 E. None of these

2. Salman was travelling on one side of the Yamuna express way with a constant speed of 120 kmph in his car. Govinda was travelling with a constant speed of 80 kmph in the opposite direction. When they crossed each other, Salman decided to take a U-turn and meet him. But before taking a U turn, Salman had to travel for another 3 minutes. How long will it take for Salman to meet Govinda? [Assume time taken by Salman to take U turn is negligible]

- A. 29 minutes B. 28 minutes C. 30 minutes D. 33 minutes E. None of these

3. An Article costs Rs. 5000 and it is marked up 40% by the shopkeeper. A customer walks into the shop and seems really interested in the article. Sensing this, the shopkeeper gets greedy and he raises the markup % to 80% and gives a discount of 20% to the customer. How much more/less money would he had made, had he not gotten greedy?

- A. Rs. 200 more B. Rs. 200 less C. Rs. 400 more D. Rs. 400 less E. None of these

4. Radhe does 70% of some work in 15 days. Later, with Shyam's help, she completes the remaining work in 4 days. In how many days can Shyam alone complete the entire work?

- A. 35 days B. 35.2 days C. 35.3 days D. 38.4 days E. None of these

5. Mr. Natwarlal is playing a game in which there are 4 boxes with different number of balls and in total there are 4 different coloured balls. A ball has to be taken out from each box and the color of the ball is revealed only after it has been taken out. The game is won when all four are of same colour. The balls cannot be seen by Mr. Natwarlal but the dealer happened to be a friend of Mr. Natwarlal and the dealer told him about the distribution of different balls in different boxes. The distribution is as follows:

Box A. Red, Yellow, Black

Box B. Red, Yellow

Box C. Yellow, Yellow, Red

Box D. Red, Black, Yellow, Blue

Which colour Ball should Mr. Natwarlal choose in order to maximise his winning probability?

- A. Red B. Yellow C. Black D. Blue
E. All have the same probability of winning

6. Average weight of three friends Amar, Visera and Daman is 70 kg. Another person Vishal joins the group and now the average is 66 kg. If another person Tahir whose weight is 6 kg more than Vishal, joins the group replacing Amar, then average weight of Visera, Daman, Vishal and Tahir becomes 75 kg. What is the weight of Amar (in kg)?

- A. 18 B. 20 C. 22 D. 24 E. None of these

7. The production of a company has ups and downs every year. The production increases for two consecutive years consistently by 15% and in the third year it decreases by 20%. Again in the next two years it increases by 25% each year and decreases by 10% in the third year. If we start counting from the year 2014 approximately what will be the effect on the production of the Company in 2018?

- A. 22 B. 32 C. 30 D. 20 E. None of these

8. If a cone of maximum volume is carved from a cylinder of radius of 35cm and height 150cm, what is the curved surface area of the cylinder which can be made from the remaining metal if its radius is 70cm?

- A. $1.1m^2$ B. $1.2m^2$ C. $1.3m^2$ D. $1.5m^2$ E. Can't be determined

9. A mixture has milk and water in the ratio of 7 : 2. If 5 litre of milk and 6 litre of water is added to the mixture the ratio becomes 5 : 2. By how much percent is the quantity of milk more than the quantity of water in the final mixture?

- A. 100% B. 125% C. 120% D. 200% E. None of these

10. Abhishek, Bhuvan and Chandan invested 10000, 15000 and 20000 respectively. After 6 months, Abhishek withdrew 20% of his investment, Bhuvan invested 30% more and Chandan doubled his investment. If total profit earned at the end of the year is 9450. What is difference between the share of Abhishek and Chandan in the profit?

- A. 3756 B. 3484 C. 3972 D. 3528 E. None of these

Correct Answers:

1	2	3	4	5	6	7	8	9	10
B	E	B	C	B	D	B	A	E	D



SBI PO Pre 2020

FREE MOCK TEST

Attempt Now

- ✓ EXCELLENT CONTENT
- ✓ BRILLIANT TEST ANALYSIS
- ✓ UNMATCHED EXPLANATION

Explanations:

1. The total interest rate for the first 3 years is $6 + 9 + 5 = 20\%$ and after that the interest is compounded annually for 3 years at the rate of 20% per annum.

The total amount received from the first investment = 120% of $10000 = 12000$

Now, 12000 is invested for 3 years at 20% compound interest per year.

By the net % effect formula, we can calculate the total % increase in amount.

So, at the rate of 20% for 3 years, we get 72.8% as the total percentage increase. Hence, the final amount received will be 172.8% of 12000

172.8% of total investment = 172.8% of $12000 = 20736$

So, the total interest earned in 6 years period = $20736 - 10000 = 10736$.

Hence, option B is correct.

- 2.

Distance Travelled by Salman in 3 minutes = $\frac{3}{60} \times 120 = 6$ km

Distance travelled by Govinda in 3 minutes = $\frac{3}{60} \times 80 = 4$ km

Hence Salman will have to travel a distance of 10 km before catching up with Govinda.

Relative speed of Salman to that of Govinda after taking U turn = $120 - 80 = 40$ kmph

\therefore Time taken by Salman after taking U turn to Meet Govinda = $10/40 = 15$ minutes

Total time taken by Salman to meet Govinda = $(3 + 15)$ minutes = 18 minutes

Hence, option E is correct.

3. We can compare Selling Price to get the answer.

First Scenario: When markup was 40%
= 140% of $5000 = 7000$

Second Scenario: When there is markup of 80% and then a discount of 20%
= 80% of 180% of $5000 = 7200$

In the second scenario, he is earning Rs. 200 less.

So we can say that he would have earned Rs. 200 less, had he not gotten greedy.

Hence, option B is correct.

4. Let total work = 150 units
Since Radhe does 70% of the work (i.e. 105 units) in 15 days,

$$\text{Radhe} = \frac{105}{15} = 7 \text{ units per day}$$

Work left = $150 - 105 = 45$ units

Let Shyam do x units of work per day. Shyam and Radhe finish the pending work in 4 days.

$$\therefore 4(x + 7) = 45$$

$$\therefore 4x = 45 - 28 = 17 \text{ i.e. } x = 4.25 \text{ units}$$

$$\therefore \text{Time taken by Shyam to complete the work} = 150/4.25 = 35.29 \approx 35.3 \text{ days}$$

Note that 0.3 is equivalent to $5/17$ (among the options).

Hence, option C is correct.

5. The winning probability are as follows:

$$\text{Red: } \frac{1}{3} \times \frac{1}{2} \times \frac{1}{3} \times \frac{1}{4} = \frac{1}{72}$$

$$\text{Yellow: } \frac{1}{3} \times \frac{1}{2} \times \frac{2}{3} \times \frac{1}{4} = \frac{2}{72}$$

So here we can see that Yellow's probability of winning is twice than Red. So logically Mr. Natwarlal should choose Yellow Ball. Black and Blue can't win because they are not present in every box.)

Hence, option B is correct.

6. Total weight of Amar, Visera and Daman = $70 \times 3 = 210$ kg

$$\text{Again, Amar + Visera + Daman + Vishal} = 66 \times 4 = 264 \text{ kg} \quad \dots\dots\dots (i)$$

$$\therefore \text{Weight of Vishal} = 264 - 210 = 54 \text{ kg}$$

$$\therefore \text{Weight of Tahir} = 54 + 6 = 60 \text{ kg}$$

Now, as per the question

$$\text{Visera + Daman + Vishal + Tahir} = 75 \times 4 = 300 \text{ kg.} \quad \dots\dots\dots (ii)$$

Subtracting (i) from (ii), we get

$$\text{Tahir} - \text{Amar} = 60 - \text{Amar} = 300 - 264 = 36$$

$$\text{Therefore, weight of Amar} = 60 - 36 = 24 \text{ kg}$$

Hence, option D is correct.

7. Suppose the production of the company in the year 2014 be x.

Then production of the company in year 2018

$$= x \times \frac{115}{100} \times \frac{115}{100} \times \frac{80}{100} \times \frac{125}{100} = 1.32x$$

∴ Increase % in the production in year 2018

$$= \frac{(1.32x - x) \times 100}{x} = 32\%$$

Hence, option B is correct.

8. We know that the volume of a cylinder is $\pi r^2 h$

and the volume of a cone is $\frac{1}{3} \times \pi r^2 h$

Since radii of both cylinder and cone are same, we can say that the remaining volume will be

$$\frac{2}{3} \times \frac{22}{7} \times r^2 h$$

And since the volume always remain same, we can say that the new structure will have same volume but only different

radius and height. We can therefore equate the volumes

$$\frac{2}{3} \times \frac{22}{7} \times 35^2 \times 150 = \frac{22}{7} \times 70^2 \times h$$

Now curved surface area is $= 2 \times \frac{22}{7} \times r \times h$

Putting value of r= 70 and h as 25 we get

$$CSA = 2 \times \frac{22}{7} \times 70 \times 25 = 11000 \text{ cm}^2 \text{ or } 1.1\text{m}^2$$

Hence, option A is correct.



SBI PO Pre 2020

FREE MOCK TEST

[Attempt Now](#)

- ✓ EXCELLENT CONTENT
- ✓ BRILLIANT TEST ANALYSIS
- ✓ UNMATCHED EXPLANATION

9. Let the initial quantities of milk and water be $7x$ and $2x$ respectively
According to the scenario, 5 litre of milk is added and 6 litres of water and ratio becomes 5:2
We can put it in equation like this,

$$\frac{7x + 5}{2x + 6} = \frac{5}{2}$$

We get $x = 5$

Putting in the assumed quantities we get initial qty milk as 35 litre and water as 10 litre.

So final quantities are $35 + 5 = 40$ and $10 + 6 = 16$

Now Milk is 24 litres more than water which can be expressed into %age as

$$\frac{24}{16} \times 100 = 150\%$$

Hence, option E is correct.

10. During the first 6 months, their share is

Abhishek: $10000 \times 6 = 60000$

Bhuvan: $15000 \times 6 = 90000$

Chandan: $20000 \times 6 = 120000$.

After 6 months, there is a change in their investment structure. So, their share for the next 6 months becomes.

Abhishek: $(80\% \text{ of } 10000) \times 6 = 48000$

Bhuvan: $(130\% \text{ of } 15000) \times 6 = 117000$

Chandan: $(20000 \times 2) \times 6 = 240000$

So their total share becomes:

Abhishek: $60000 + 48000 = 108000$

Bhuvan: $90000 + 117000 = 207000$

Chandan: $120000 + 240000 = 360000$

Now the profit is Rs. 9450 and the difference between the total share of Abhishek and Chandan is 252000 and the total share is 675000.

So the difference in their share in profit can be found out as:

$$= \frac{9450 \times 252000}{675000} = \text{Rs. } 3528$$

Hence, option D is correct.



SBI PO Pre 2020

FREE MOCK TEST [Attempt Now](#)

- ✓ EXCELLENT CONTENT
- ✓ BRILLIANT TEST ANALYSIS
- ✓ UNMATCHED EXPLANATION



SmartKeeda

The Question Bank

Presents

TestZone

India's least priced Test Series platform

JOIN

ALL BANK EXAMS

2019-20 Test Series

@ Just

₹ 499/-

300+ Full Length Tests

- Brilliant Test Analysis
- Excellent Content
- Unmatched Explanations

JOIN NOW