



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 परीक्षाओं के लिए निश्चित
रूप से सर्वश्रेष्ठ मॉक
टेस्ट सीरीज

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



Smartkeeda
The Question Bank

Date Interpretation Table Chart Questions for SBI PO Pre, IBPS PO Pre, LIC AAO, SBI Clerk Mains and IBPS Clerk Mains Exams.

Direction: Study the following table carefully and answer the questions based on it.

SET – 1

Ram has 5000 litres of pure milk. He sells 40% of the total milk to six different persons (A,B,C,D,E,F) and the remaining 60% of total milk he utilizes in his own shop. Each person, A, B, C, D, E, and F mixes water in pure milk. The following table given below shows the sales of milk to six different persons by Ram as a percentage of total sales and it also shows the concentration of water after adding water in pure milk by each of the six persons.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24%	24%
B	10%	10%
C	12%	18%
D	7%	15%
E	28%	25%
F	19%	12%

1. What is the difference between the total quantity of water added by Person A and that of Person C? (approximately)

- A. 105 liters B. 99 liters C. 91 liters
D. 95 liters E. 102 liters

2. What is the respective ratio of the total quantity of water added by Person C and the total quantity of water added by Person E?

A. 81 : 287

B. 9 : 32

C. 3 : 11

D. 85 : 287

E. None of these

3. Who among the following added least quantity (In litres) of water in pure milk?

A. A

B. B

C. C

D. E

E. F

4. Suppose, A, B, and C mix their solutions in one can then what would be the concentration of milk in the new solutions? (approximately)

A. 75.2%

B. 78.21%

C. 80.25%

D. 85.24%

E. 72.68%

5. How many total litres of water was added by all the persons together? (approximately)

A. 500 litres

B. 550 litres

C. 450 litres

D. 490 litres

E. 520 litres

6. Suppose, all of them mixed the solution together in one can and boiled it then 200 litres of water were evaporated then what is the concentration of pure milk in the new solution? (approximately)

A. 92.28%

B. 85.24%

C. 91.42%

D. 78.45%

E. 87.34%



“ FRIENDS! I USED **TESTZONE** AND CRACKED SBI PO 2018
बैंक परीक्षाओं के लिए निश्चित रूप से सर्वश्रेष्ठ मॉक टेस्ट सीरीज ”



Bipin Nambiar (SBI PO 2018)

Join us on Telegram for more PDFs
Click here



SET – 2

This following table is related to profit and loss and some values are missing. All the discounts are on the M.P. and the profit are on C.P.

Article	Cost Price (Rs.)	Profit (%)	Marked Price (Rs.)	Discount (%)	Selling Price (Rs.)
Jeans	2280	---	2720	---	---
Shirt	---	30%	---	---	---
T-shirt	---	---	2875	14%	---
Suit	2200	---	---	---	2640
Saree	---	20%	3800	---	---

7. If the discount % and profit % of the Suit is same. Find out the M.P. of Suit?

- A. Rs. 2200 B. Rs. 2500 C. Rs. 2800
D. Rs. 3300 E. None of these

8. If the M.P. of jeans is Rs. 140 more than the C.P. of Shirt and the difference between M.P. and S.P. of Shirt is Rs. 780. Find the discount % of Shirt?

- A. 20.46% B. 19.76% C. 18.86%
D. 17.56% E. None of these

9. C.P. of Suit is how much percentage less than the M.P. of Jeans?

- A. 21.2% B. 19.1% C. 18.6%
D. 18.4% E. None of these

10. The ratio of discount % and profit % of the T-shirt is 7 : 5. Find CP. of T-shirt? (approximately)

- A. Rs. 2285 B. Rs. 2398 C. Rs. 2552
D. Rs. 2248 E. None of these

11. If the ratio of the C.P. of the Jeans and Saree is 4:5, find out the discount % of Saree?

A. 10%

B. 12%

C. 15%

D. 20%

E. None of these



Smartkeeda
The Question Bank



“ FRIENDS! I USED **TESTZONE** AND CRACKED SBI CLERK 2018
नए पैटर्न प्रश्नों के साथ जबरदस्त मॉक टेस्ट सीरीज एनालिसिस ”



Shiraz Khan (SBI Clerk 2018)

Join us on Telegram for more PDFs
Click here



SET – 3

Year	Total Number of Votes	% of Valid Votes	Respective Ratio of Valid votes of male and valid votes of female.
2011	–	–	5 : 3
2012	500	–	5 : 4
2013	1000	38%	–
2014	–	60%	7 : 5
2015	2500	40%	–

12. In 2013, if the number of valid votes of female was 100, what was the respective ratio of number of valid votes of male and number of valid votes of female in the same year?

- A. 15 : 19 B. 13 : 11 C. 14 : 5
D. 13 : 5 E. 15 : 17

13. The total number of votes increased by 50% from 2012 to 2016. If 16% of the votes were valid in 2016, what was the number of valid votes in 2016?

- A. 205 B. 250 C. 120
D. 140 E. 130

14. If the average number of valid votes in 2012 and 2015 was 635, what was the number of votes given by female in 2012?

- A. 270 B. 135 C. 120
D. 150 E. 210

15. In 2014, if the difference between number of valid votes of male and number of valid votes of female was 150, what was the total number of votes in 2014?

- A. 1845 B. 1500 C. 1660
D. 1600 E. 1720

16. In 2011, the respective ratio of total number of votes to valid votes was 5 : 4. Number of valid votes of female in 2011 constitutes what percent of the total number of votes in the same year?

A. 35%

B. 25%

C. 15%

D. 30%

E. Can't be determined



Smartkeeda

The Question Bank



“ FRIENDS! I USED **TESTZONE** AND CRACKED SBI CLERK 2019
बेहतरीन कंटेंट, उत्कृष्ट मॉक टेस्ट, सबसे कम दामों पर ”



Kuldeep Yadav (SBI PO 2018)

Join us on Telegram for more PDFs
Click here



SET – 4

The table below shows details about invested by different persons:

Person	Rate of interest	Time (Years)	Principal (Rs.)	Amount (Rs.)
Arun	6%		18000	
Sourav	6%		30000	
Amit		5		29000
Piku		3	45000	
Ankit	8%		20000	
Anita		2	60000	

Note: Calculate simple interest unless specified
All questions are independent from others.

17. If the rate of interest received by Arun and Amit is in the ratio of 2 : 3 then find in how many years the money invested by Amit will be doubled with same rate of interest?

- A. 14.80 B. 13.45 C. 11.11
D. 15.50 E. 12.54

18. If the difference between the interest received by Ankit and Sourav is Rs 4200 and Ankit invested his money for double the time period for which Sourav invested his money then find the amount received by Ankit ?

- A. Rs. 30000 B. Rs. 28600 C. Rs. 29600
D. Rs. 35400 E. Rs. 35540

19. If the amount received by Amit is twice the money invested by him then find amount he will receive after 2 years if he invests the same amount of money in compound interest for 2 years compounded half yearly?

- A. Rs. 22199.45 B. Rs. 21992.45 C. Rs. 21292.45
D. Rs. 21929.45 E. Rs. 21229.45

20. If the interest received by Anita is 20% of the sum invested by her then find how much more money as interest she would have earned if she had invested the money in compound interest?

A. Rs. 600

B. Rs. 130

C. Rs. 200

D. Rs. 1500

E. Rs. 700

21. If the interest received by Anita is Rs 7575 more than interest received by Piku and the rate of interest received by Anita 2% more than the rate of interest received by Arun then find the interest rate received by Piku ?

A. 8%

B. 1.3%

C. 2.5%

D. 1.5%

E. 1.4%



Smartkeeda
The Question Bank



“ FRIENDS! I USED **TESTZONE** AND CRACKED IBPS CLERK 2018
हर मॉक टेस्ट के साथ अपनी प्रगति को जांचने के लिए उपलब्ध एनालिसिस टूल्स, अतुलनीय ! **”**



Rajat Saxena (IBPS Clerk 2018)

Join us on Telegram for more PDFs
Click here



SET – 5

Ram bought five cars in a day and put on rent for 15 days. The table represents the mileage of the cars, average amount of petrol used by each car per day, and the total time taken to cover the total distance which is covered during 15 days. (The time when the car was standing is not taken as consideration)

	Mileage of car	Average amount of petrol used per day	Total time taken to cover the total distance which is covered during 15 days
Car A	22 km/litres	8 litres	48 hours
Car B	15 km/litres	12 litres	50 hours
Car C	25 km/litres	9 liters	45 hours
Car D	18 km/litres	20 litres	75 hours
Car E	24 km/litres	16 litres	90 hours

22. What was the ratio of the average speed of Car A and Car C during 15 days?

- A. 11 : 13 B. 11 : 15 C. 13 : 11
D. 15 : 11 E. None of these

23. Car A and Car E is travelling towards each other with speed same as the average speed of it during the given 15 days. After meeting, they travel to each other's starting point. If initially distance between both cars is 2380 km then find difference of the time taken by car A and car B to reach their destination after meeting each other.

- A. (1089/176) hours B. (971/176) hours C. (1071/176) hours
D. (1061/176) hours E. None of these

24. Find the ratio of the time taken by Car D to travel 1080 km to the time taken by car B to travel 972 km, with the speed same as the average speed of it during the given 15 days.

- A. 4 : 5 B. 5 : 6 C. 6 : 11
D. 7 : 8 E. 9 : 10

25. If the total distances covered by all the cars in 15 days is covered by car G and car H in 159 hours and 265 hours respectively then find the difference between average speeds of car G and Car H.

- A. 40 km/h B. 55 km/h C. 45 km/h
D. 50 km/h E. 60 km/h

26. Car C is travelling from point P to point Q and car D is travelling from point Q to point P. After every hour car C increases its speed by 6 km/h and car D decreases its speed by 3 km/h. If distance between point P and point Q is 765 km, then find the time taken by car C to reach point Q after meeting car D if after meeting both the cars travel at their initial speed. (The initial speed to be considered for Car C and Car D is the average speed during 15 days)

- A. 5.2 hours B. 4.6 hours C. 4.4 hours
D. 5 hours E. 4.8 hours



“ FRIENDS! I USED **TESTZONE** AND CRACKED IBPS PO 2018
अतुलनीय टेस्ट एनालिसिस, सबसे भरोसेमंद मॉक टेस्ट सीरीज ”



Anupam Tyagi (IBPS PO 2018)

Join us on Telegram for more PDFs
Click here



SET – 6

The following table shows the discount % given by different stores on different books. The marked price of every book on all stores are same.

Books	Stores			
	1	2	3	4
A	12%		24%	18%
B	16%	12%	8%	
C	15%			10%
D		6%	9%	

27. The average selling price of book B in store 2 and 3 is Rs. 585. What is the selling price of book B in store 2?

- A. Rs. 650 B. Rs. 598 C. Rs. 520
D. Rs. 572 E. Rs. 533

28. The selling price of book A in store 1 is Rs. 396 and difference of selling price in store 2 and 3 is Rs. 36. What is the discount percentage in store 2?

- A. 18% B. 20% C. 16%
D. 10% E. 12%

29. By selling book A store 1 makes a profit of 10%. What is the profit/loss percent incurred by store 3 on the same book?

- A. 5% profit B. 5% loss C. 10% profit
D. 4% loss E. 10% loss

30. The average selling price of book D in store 2 and 3 is Rs. 1110. What is the marked price of book D?

- A. Rs. 1200 B. Rs. 1100 C. Rs. 1250
D. Rs. 1500 E. Rs. 1550

31. Ratio of discount percentage on book C in store 1 and 2 is 3 : 2. If selling price in store 1 is Rs. 221, then what is the selling price in store 2?

A. Rs. 198

B. Rs. 234

C. Rs. 260

D. Rs. 286

E. Rs. 208



Smartkeeda

The Question Bank



“ FRIENDS! I USED **TESTZONE** AND CRACKED SBI PO 2018
बैंक परीक्षाओं के लिए निश्चित रूप से सर्वश्रेष्ठ मॉक टेस्ट सीरीज ”



Bipin Nambiar (SBI PO 2018)

Join us on Telegram for more PDFs
Click here



SET – 7

The following table shows the variable time taken by different pipes to fill different tanks of various capacities.

	Tank A	Tank B	Tank C
Pipe 1	2.5 hrs	'x' hrs	15 hrs
Pipe 2	3.0 hrs	9 hrs	18 hrs
Pipe 3	4.5 hrs	'z' hrs	'y' hrs

32. A time of 'z' hrs was taken by a man to drive his car from his home to office. Whereas, he drove back at a speed of 49km/hr for 'x' hrs. Find the approximate speed of car during his drive from home to office?

- A. 35 km/hr B. 45 km/hr C. 27 km/hr
D. 21 km/hr E. 31 km/hr

33. While filling with pipe 3, a hole was drilled in tank A so that a leakage drained some water at the rate of 15m³/hr. Now, if the tank was full in 5.4 hrs , then the rate of flow of in-let water is

- A. 45 m³/hr B. 90 m³/hr C. 60 m³/hr
D. 120 m³/hr E. None of these

34. A man claimed the stats for the Pipe 2- filling the tank B to be incorrect. According to him, the time recorded was 17% more than the actual time. Then, the difference in the fraction value of the new y/z and old x/y is

- A. 232/225 B. 232/450 C. 838/225
D. 464/225 E. None of these

35. If Pipe 2 was used to fill cylindrical Tanks B & C of same heights, such that the ratio of water flow-rate used was 9:2. Then the ratio of the area of base of the two tanks is

A. 9 : 4

B. 3 : 2

C. 1 : 9

D. 9 : 1

E. None of these



Smartkeeda
The Question Bank



“ FRIENDS! I USED **TESTZONE** AND CRACKED SBI CLERK 2018
नए पैटर्न प्रश्नों के साथ जबरदस्त मॉक टेस्ट सीरीज एनालिसिस ”



Shiraz Khan (SBI Clerk 2018)

Join us on Telegram for more PDFs
Click here



SET – 8

The data related to three core branches of engineering in five different IITs are given in the table.

	Number of students in Mechanical Engineering	Ratio of students in Civil to Mechanical Engineering	Ratio of students in Electrical to Civil Engineering
IIT Delhi	1080	17 : 20	32 : 27
IIT Bombay	1420	11 : 10	19 : 22
IIT Kharagpur	1640	36 : 41	23 : 18
IIT Kanpur	1260	31 : 28	49 : 45
IIT Madras	1584	13 : 16	34 : 39

36. Find the difference between the number of students of Electrical engineering of IIT Delhi to that of IIT Bombay.

- A. 311 B. 221 C. 261
D. 321 E. 291

37. 35% and 20% of total students of Civil engineering of IIT Kharagpur are studying in 1st year and in 2nd year respectively while the ratio of number of students studying in 1st year, 2nd year, 3rd year, and 4th year in Civil Engineering in IIT Kanpur is 7 : 9 : 8 : 7 respectively. The total number of students studying in 1st year and in 2nd year together in Civil in IIT Kanpur is approximately what percent of the total number of students studying in 1st year and in 2nd year together in Civil in IIT Kharagpur?

- A. 86% B. 91% C. 96%
D. 82% E. 76%

38. If the ratio of the number of students in Electronics to Mechanical in IIT Bombay and IIT Kanpur is 4 : 5 and 71 : 70 respectively, then find the ratio of the number of students in Electronics in IIT Bombay to that in IIT Kanpur.

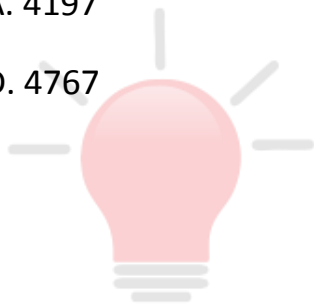
- A. 8 : 9 B. 7 : 9 C. 5 : 6
D. 6 : 5 E. 9 : 8

39. The total number of students of Civil Engineering of all the given colleges is approximately what percent of the total number of students of Mechanical Engineering of all the given colleges?

- A. 91% B. 95% C. 84%
D. 112% E. 103%

40. The total number of students in Computer Science in IIT Kharagpur, IIT Kanpur, and IIT Madras together is 286 more than the total number of students in Electrical in the same colleges together. Find the total number of students in Computer Science in IIT Kharagpur, IIT Kanpur, and IIT Madras together.

- A. 4197 B. 5257 C. 4357
D. 4767 E. 4987



Smartkeeda
The Question Bank



“ FRIENDS! I USED **TESTZONE** AND CRACKED SBI CLERK 2019
बेहतरीन कंटेंट, उत्कृष्ट मॉक टेस्ट, सबसे कम दामों पर ”



Kuldeep Yadav (SBI PO 2018)

Join us on Telegram for more PDFs
Click here



SET – 9

The following graph gives the information about the sale of mobile by six different companies (A, B, C, D, E and F) over the years. Study the table carefully and answer the questions that follow.

Company	Years				
	2013	2014	2015	2016	2017
A	5643	6532	5423	78932	56781
B	2456	7462	6512	67823	54395
C	1890	2364	9812	67923	67809
D	6742	6354	5613	67120	56721
E	6792	6210	6821	71200	78912
F	5421	5637	2573	45321	36544

41. What is the difference between the average of the total number of mobile phone sold by company A over the years and the average of the total number of mobile phone sold by company F over the years?

- A. 11563 B. 12563 C. 11463
D. 11363 E. None of these

42. The number of mobile phones sold by Company D in 2013 is approximately what percent of the total number of mobile phone sold in that year?

- A. 27.89% B. 31.28% C. 16.52%
D. 23.29% E. 35.43%

43. What is the percentage increase (approximately) in the sale of mobile phones by Company A in 2014 over the previous year?

- A. 18.65% B. 15.75% C. 19.65%
D. 10.21% E. 20.50%

44. What is the average number of mobile phones sold by all the companies together in 2017?

A. 58527

B. 59627

C. 58127

D. 58537

E. None of these

45. The number of mobile phones sold by company E in 2014 is approximately what percent of the number of mobile phones sold by company F in 2013?

A. 84.65%

B. 114.55%

C. 121.65%

D. 108.45%

E. None of these



Smartkeeda
The Question Bank



“ FRIENDS! I USED **TESTZONE** AND CRACKED IBPS CLERK 2018
हर मॉक टेस्ट के साथ अपनी प्रगति को जांचने के लिए उपलब्ध एनालिसिस टूल्स, अतुलनीय ! **”**



Rajat Saxena (IBPS Clerk 2018)

Join us on Telegram for more PDFs
Click here



49. What is the total marks obtained by Nakul in all the tests together?

A. 520

B. 490

C. 450

D. 420

E. 550

50. What is the difference between the marks obtained by Yudhisther, Arjun and Nakul together in the written test and the marks obtained by Bhim, Sahdev and Karan in Psychology test?

A. 15

B. 20

C. 25

D. 35

E. 30



Smartkeeda

The Question Bank



“ FRIENDS! I USED **TESTZONE** AND CRACKED IBPS PO 2018
अतुलनीय टेस्ट एनालिसिस, सबसे भरोसेमंद मॉक टेस्ट सीरीज ”



Anupam Tyagi (IBPS PO 2018)

Join us on Telegram for more PDFs
Click here



Correct answers

1	B	11	A	21	D	31	B	41	A
2	A	12	C	22	B	32	C	42	D
3	B	13	C	23	C	33	B	43	B
4	C	14	C	24	B	34	D	44	A
5	D	15	B	25	D	35	A	45	B
6	E	16	D	26	C	36	C	46	E
7	D	17	C	27	D	37	B	47	C
8	C	18	C	28	C	38	A	48	E
9	B	19	E	29	B	39	B	49	B
10	D	20	A	30	A	40	D	50	A



Smartkeeda

The Question Bank

Explanations:

1. 40% of 5000 = 2000 litres Ram sells to six persons

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24%
B	10% of 2000 = 200 litres	10%
C	12% of 2000 = 240 litres	18%
D	7% of 2000 = 140 litres	15%
E	28% of 2000 = 560 litres	25%
F	19% of 2000 = 380 litres	12%

Let Person A add 'a' litres of water then the total quantity of solution = 480 + 'a' litres, in which the concentration of water is 24%

Therefore, 24% of (480 + a) = a

$$100a = 24 \times 480 + 24a$$

$$76a = 24 \times 480$$

A = $\frac{2880}{19}$ litres = approximately 151.58 litres = Quantity of water added by Person A

Similarly, Let the person C add c litres of water then

$$18\% \text{ of } (240 + c) = c$$

$$82c = 240 \times 18$$

$$C = \frac{2160}{41} \text{ litres} = 52.68 \text{ litres approximately} = \text{quantity of water added by person C}$$

The required difference = 151.58 – 52.68 = 98.9 litres = approximately 99 litres

Hence, option B is correct.

2. Let the person C add c litres of water then

$$18\% \text{ of } (240 + c) = c$$

$$82c = 240 \times 18$$

$$C = \frac{2160}{41} \text{ litres} = 52.68 \text{ litres approximately}$$

= quantity of water added by person C

Let the person E add e litres of water

$$\text{Then, } 25\% \text{ of } (560 + e) = e$$

$$75e = 560 \times 25$$

$$E = \frac{560}{3} \text{ litres} = \text{quantity of water added by person E}$$

$$\text{Reqd. ratio} = \frac{2160}{41} : \frac{560}{3} = 81 : 287$$

Hence, option A is correct.

3. Let Person A add 'a' litres of water then the total quantity of solution = 480 + 'a' litres, in which the concentration of water is 24%

$$\text{Therefore, } 24\% \text{ of } (480 + a) = a$$

$$100a = 24 \times 480 + 24a$$

$$76a = 24 \times 480$$

$$a = \frac{2380}{19} \text{ litres} = \text{approximately } 125.26 \text{ litres}$$

= Quantity of water added by Person A

Let the person B add b litres of water then,

$$10\% \text{ of } (200 + b) = b$$

b = quantity of water added by Person B

$$= \frac{200}{9} \text{ litres} = \text{approximately } 22.22 \text{ litres}$$

Let the person C add c litres of water then

$$18\% \text{ of } (240 + c) = c$$

$$82c = 240 \times 18$$

$$C = \frac{2160}{41} \text{ litres} = 52.68 \text{ litres approximately}$$

= quantity of water added by person C

Let the person D add d litres of water

$$15\% \text{ of } (140 + d) = d$$

$$d = \frac{140 \times 15}{85} = 24.70 \text{ litres}$$

= quantity of water added by person D

Let the person E add e litres of water

$$\text{Then, } 25\% \text{ of } (560 + e) = e$$

$$75e = 560 \times 25$$

$$E = \frac{560}{3} \text{ litres} = 186.67 \text{ litres approximately}$$

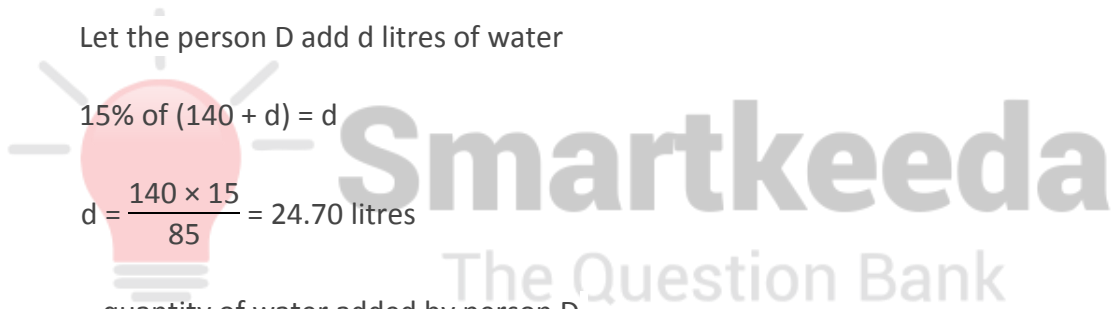
= quantity of water added by person E

Let the person F add f litres of water then,

$$12\% \text{ of } (380 + f) = f$$

$$88f = 380 \times 12$$

f = 51.82 litres = quantity of water added by person F



Therefore, B added least quantity (In litres) of water

Hence, option B is correct.

4.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24% = 151.58 litres
B	10% of 2000 = 200 litres	10% = 22.22 litres
C	12% of 2000 = 240 litres	18% = 52.56 litres

When A, B, and C mix their solution in one can then the quantity of milk in the new solution = $480 + 200 + 240 = 920$ litres

And the quantity of milk in the new mixture = $151.58 + 22.22 + 52.56 = 226.36$ litres

The total quantity of new solution = $920 + 226.36 = 1146.36$ litres

The required concentration of milk in the new solution

$$= \frac{920 \times 100}{1146.36} = 80.25\% \text{ approximately}$$

Hence, option C is correct.

5.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24% = 151.58 litres
B	10% of 2000 = 200 litres	10% = 22.22 litres
C	12% of 2000 = 240 litres	18% = 52.68 litres
D	7% of 2000 = 140 litres	15% = 24.70 litres
E	28% of 2000 = 560 litres	25% = 186.67 litres
F	19% of 2000 = 380 litres	12% = 51.82 litres

The total quantity of water added by all the persons together

$$= 151.58 + 22.22 + 52.68 + 24.70 + 186.67 + 51.82$$

= approximately 489.67 litres = approximately 490 litres

Hence, option D is correct.

6. The total quantity of milk = 2000 litres

The total quantity of water = approximately 490 litres

The total quantity of solution = 2000 + 490 = 2490 litres approximately

When 200 litres of water were evaporated then the remaining quantity of water
= 2490 – 200 = 2290 litres

The concentration of pure milk in the new solution

$$= \frac{2000 \times 100}{2290} = \text{approximately } 87.34\%$$

Hence, option E is correct.

7.

Article	Cost Price (Rs.)	Profit (%)	Marked Price (Rs.)	Discount (%)	Selling Price (Rs.)
Jeans	2280	---	2720	---	---
Shirt	---	30%	---	---	---
T-shirt	---	---	2875	14%	---
Suit	2200	20%	3300	20%	2640
Saree	---	20%	3800	---	---

Let the Profit % and the Discount % of the Suit = x

$$\text{Selling Price of Suit} = \text{Cost Price} \times \frac{100 + x}{100}$$

$$2640 \times 100 = 2200 \times (100 + x)$$

$$264000 = 220000 + 2200x$$

$$2200x = 264000 - 220000$$

$$2200x = 44000$$

$$x = 20\%$$

$$\begin{aligned} \text{M. P. of suit} &= \frac{2640}{80} \times 100 \\ &= 3300 \end{aligned}$$

M.P. of Suit = Rs. 3300

Hence, option D is correct.

8.

Article	Cost Price (Rs.)	Profit (%)	Marked Price (Rs.)	Discount (%)	Selling Price (Rs.)
Jeans	2280	---	2720	---	---
Shirt	2580	30%	4134	18%	3354
T-shirt	---	---	2875	14%	---
Suit	2200	---	---	---	2640
Saree	---	20%	3800	---	---

M.P. of Jeans = Rs. 2720

C.P. of Shirt = Rs. (2720 - 140) = Rs. 2580

$$\text{S.P. of Shirt} = 2580 \times \frac{130}{100} = \text{Rs. } 3354$$

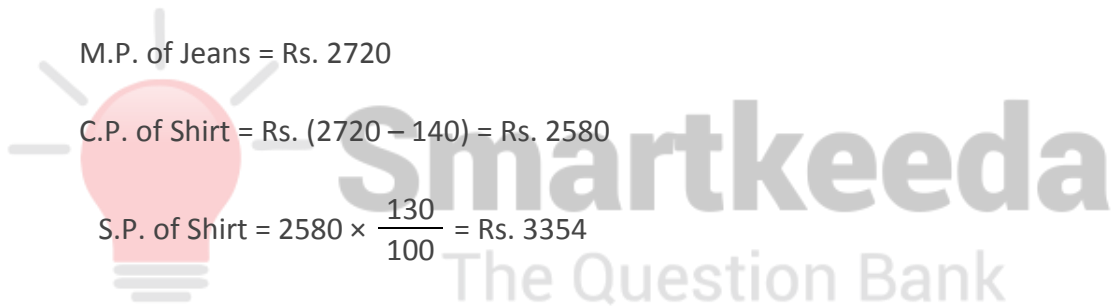
M.P. of Shirt = Rs. (3354 + 780) = Rs. 4134

$$\text{Discount \%} = \frac{4134 - 3354}{4134} \times 100$$

$$\text{Discount \%} = \frac{780}{4134} \times 100$$

Discount % = 18.86%

Hence, option C is correct.



9.

Article	Cost Price (Rs.)	Profit (%)	Marked Price (Rs.)	Discount (%)	Selling Price (Rs.)
Jeans	2280	---	2720	---	---
Shirt	---	30%	---	---	---
T-shirt	---	---	2875	14%	---
Suit	2200	---	---	---	2640
Saree	---	20%	3800	---	---

C.P of Suit = Rs. 2200

M.P. of Jeans = Rs. 2720

$$\text{Less \%} = \frac{2720 - 2200}{2720} \times 100$$

$$\text{Less percentage} = \frac{520}{2720} \times 100$$

Less percentage = 19.1%

Hence, option B is correct.

10.

Article	Cost Price (Rs.)	Profit (%)	Marked Price (Rs.)	Discount (%)	Selling Price (Rs.)
Jeans	2280	---	2720	---	---
Shirt	---	30%	---	---	---
T-shirt	---	---	2875	14%	---
Suit	2200	---	---	---	2640
Saree	---	20%	3800	---	---

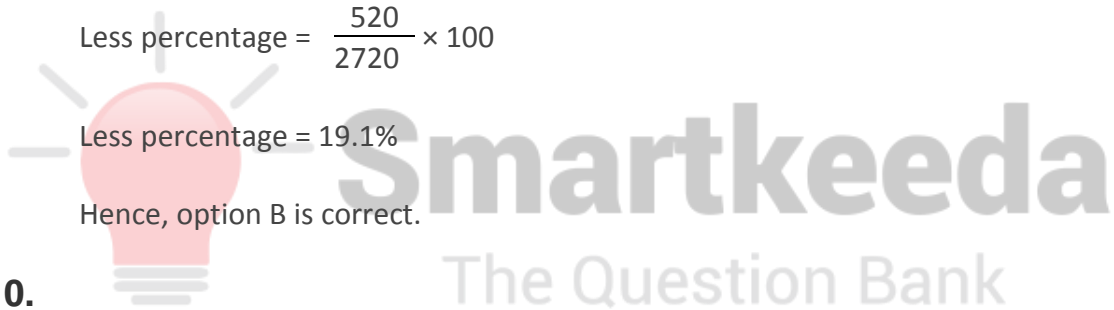
The ratio of discount % and profit % is 7 : 5.

Discount % = 14%

$$\text{Profit \%} = \frac{14 \times 5}{7} = 10\%$$

$$\text{C.P.} = \text{M.P.} \times \frac{100 - \text{Discount \%}}{100 + \text{Profit \%}}$$

$$\text{C.P.} = 2875 \times \frac{100 - 14}{100 + 10}$$



$$\text{C.P.} = \frac{2875 \times 86}{110}$$

$$\text{C.P.} = \text{Rs. } 2247.72 = 2248(\text{approximately})$$

Hence, option D is correct.

11.

Article	Cost Price (Rs.)	Profit (%)	Marked Price (Rs.)	Discount (%)	Selling Price (Rs.)
Jeans	2280	---	2720	---	---
Shirt	---	30%	---	---	---
T-shirt	---	---	2875	14%	---
Suit	2200	---	---	---	2640
Saree	2850	20%	3800	10%	3420

The ratio of the C.P. of the Jeans and Saree is 4 : 5.

$$\text{C.P. of Jeans} = \text{Rs. } 2280$$

$$\text{C.P. of Saree} = \text{Rs. } 2280 \times \frac{5}{4} = \text{Rs. } 2850$$

$$\text{S.P. of Saree} = 2850 \times 130\% = 2850 \times \frac{130}{100} = \text{Rs. } 3420$$

$$\text{M.P. of Saree} = \text{Rs. } 3800$$

$$\text{Discount \%} = \frac{\text{M.P.} - \text{S.P.}}{\text{M.P.}} \times 100$$

$$= \frac{3800 - 3420}{3800} \times 100 = 10\%$$

Hence, option A is correct.

12. Total Valid votes = 38% of 1000 = 380

$$\text{Valid votes of Female} = 100$$

$$\text{Valid votes of Male} = 380 - 100 = 280$$

$$\text{Respective ratio} = 280 : 100 = 14 : 5$$

Hence, option C is correct.

13. 50% of 500 = 250

Total Number of Votes in 2016 = 500 + 250 = 750

Hence total Number of Valid Votes in 2016 = 16% of 750 = 120

Hence, option C is correct.

14. Total number of valid votes in 2012 and 2015 = 1270

The number of valid votes in 2015 = 40% of 2500 = 1000

So the number of valid votes in 2012 = 1270 – 1000 = 270

Votes given by female in 2012 = $(4 \times 270) / 9 = 120$

Hence, option C is correct.

15. Let , Valid Votes = 12x and Total Votes = y

Valid votes by male = 7x

Valid votes by female = 5x

Difference between them = $7x - 5x = 2x = 150$ (Given)

So, $x = 75$

Therefore, Valid votes = $12x = 900$

60% of $y = 900$

$y = 1500$

Hence, option B is correct.

16. Respective ratio of total number of votes to valid votes = 5 : 4

Let the total number of votes = 10x

So the total number of valid votes = 8x

Valid votes of female in 2011 = 3x [As ratio of male to female valid votes is 5 : 3]

$$\text{Required percentage} = \frac{3x}{10x} \times 100 = 30\%$$

Hence, option D is correct.

17. Rate of interest for Amit = $\frac{6 \times 3}{2} = 9\%$

Let the principal invested by Amit be Rs. x

So,

$$= x + x \times 9 \times \frac{5}{100} = 29000$$

$$= 100x + \frac{45x}{100} = 29000$$

$$= 145x = 29000 \times \frac{100}{145}$$

$$= x = 20000$$

Amount invested by Amit = Rs 20000

To double the invested the time required

Let the time be

$$= 20000 \times \frac{100}{9 \times 20000}$$

$$= 11.11 \text{ years.}$$

Hence, option C is correct.

18. Let the time for which Sourav invested be x years

So the time for which Ankit invested = 2x years

So,

$$\text{Interest received by Ankit} = 8 \times 2x \times \frac{20000}{100} = \text{Rs. } 3200x$$

$$\text{Interest received by Sourav} = 6 \times x \times \frac{30000}{100} = \text{Rs. } 1800x$$

So,

$$3200x - 1800x = 4200$$

$$1400x = 4200$$

$$x = 3 \text{ years}$$

So,

$$\text{Interest received by Ankit} = 8 \times 6 \times \frac{20000}{100} = \text{Rs. } 9600$$

$$\text{Total amount received by Ankit} = \text{Rs. } (20000 + 9600) = \text{Rs } 29600$$

Hence, option C is correct.

19. Amount invested by Amit = $\frac{29000}{2} = \text{Rs. } 14500$

$$\text{Interest received by Amit} = 29000 - 14500 = \text{Rs } 14500$$

Let the rate of interest for Amit be x

According to question,

$$= x = \frac{14500 \times 100}{14500 \times 5}$$

$$= x = 20\%$$

$$\text{Amount he will if compounded half yearly for 2 years} = 14500 \left(1 + \frac{10}{100}\right)^4$$

$$= 14500 \times \frac{11}{10} \times \frac{11}{10} \times \frac{11}{10} \times \frac{11}{10} = \text{Rs. } 21229.45$$

Hence, option E is correct.

20. Interest received by Anita = $\frac{20 \times 60000}{100} = \text{Rs. } 12000$

$$\text{Rate} = 12000 \times \frac{100}{2} \times 60000$$

$$\text{Rate} = 10\%$$

$$\text{Interest for 1}^{\text{st}} \text{ year} = 60000 \times 10 \times \frac{1}{100} = \text{Rs. } 6000$$

$$\text{Principal for 2}^{\text{nd}} \text{ year} = 60000 + 6000 = \text{Rs } 66000$$

$$\text{Interest for second year} = 66000 \times 10 \times \frac{1}{100} = \text{Rs. } 6600$$

$$\text{Total interest received by Anita} = 6600 + 6000 = \text{Rs } 12600$$

So,

Anita will receive $(12600 - 12000) = \text{Rs } 600$ more interest.

Hence, option A is correct.

21. Let the rate of interest received by Piku be x

According to question,

$$60000 \times 8 \times \frac{2}{100} - x \times 3 \times \frac{45000}{100} = 7575$$

$$= 9600 - 1350x = 7575$$

$$= 9600 - 7575 = 1350x$$

$$= x = \frac{2025}{1350}$$

$$= x = 1.5\%$$

Hence, option D is correct.

22.

	Total distance covered in 15 days	Average Speed during 15 days
Car A	$22 \times 8 \times 15 = 2640$ km	$2640/48 = 55$ km/h
Car B	$15 \times 12 \times 15 = 2700$ km	$2700/50 = 54$ km/h
Car C	$25 \times 9 \times 15 = 3375$ km	$3375/45 = 75$ km/h
Car D	$18 \times 20 \times 15 = 5400$ km	$5400/75 = 72$ km/h
Car E	$24 \times 16 \times 15 = 5760$ km	$5760/90 = 64$ km/h

Required ratio = $55 : 75 = 11 : 15$

Hence, option B is correct.

23.

	Total distance covered in 15 days	Average Speed during 15 days
Car A	$22 \times 8 \times 15 = 2640$ km	$2640/48 = 55$ km/h
Car B	$15 \times 12 \times 15 = 2700$ km	$2700/50 = 54$ km/h
Car C	$25 \times 9 \times 15 = 3375$ km	$3375/45 = 75$ km/h
Car D	$18 \times 20 \times 15 = 5400$ km	$5400/75 = 72$ km/h
Car E	$24 \times 16 \times 15 = 5760$ km	$5760/90 = 64$ km/h

Relative speed = $55 + 64 = 119$ km/h

Time taken to meet each other = $\frac{2380}{119} = 20$ hours

Time taken by car A to travel its destination after meeting = $\frac{2380}{55} - 20 = \frac{476}{11} - 20$
 $= \frac{256}{11}$ hours

Time taken by car E to travel its destination after meeting = $\frac{2380}{64} - 20 = \frac{595}{16} - 20$
 $= \frac{275}{16}$ hours

Reqd. difference = $\frac{256}{11} - \frac{275}{16} = \frac{1071}{176}$ hours

Hence, option C is correct.

24.

	Total distance covered in 15 days	Average Speed during 15 days
Car A	$22 \times 8 \times 15 = 2640$ km	$2640/48 = 55$ km/h
Car B	$15 \times 12 \times 15 = 2700$ km	$2700/50 = 54$ km/h
Car C	$25 \times 9 \times 15 = 3375$ km	$3375/45 = 75$ km/h
Car D	$18 \times 20 \times 15 = 5400$ km	$5400/75 = 72$ km/h
Car E	$24 \times 16 \times 15 = 5760$ km	$5760/90 = 64$ km/h

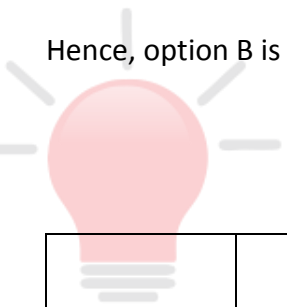
Time taken by car B = $\frac{972}{54} = 18$ hours

Time taken by car D = $\frac{1080}{72} = 15$ hours

Required ratio = $15 : 18 = 5 : 6$

Hence, option B is correct.

25.



Smartkeeda

	Total distance covered in 15 days	Average Speed during 15 days
Car A	$22 \times 8 \times 15 = 2640$ km	$2640/48 = 55$ km/h
Car B	$15 \times 12 \times 15 = 2700$ km	$2700/50 = 54$ km/h
Car C	$25 \times 9 \times 15 = 3375$ km	$3375/45 = 75$ km/h
Car D	$18 \times 20 \times 15 = 5400$ km	$5400/75 = 72$ km/h
Car E	$24 \times 16 \times 15 = 5760$ km	$5760/90 = 64$ km/h

Total distance = $2640 + 2700 + 3375 + 5400 + 5760 = 19875$ km

Average speed of car G = $\frac{19875}{159} = 125$ km/h

Average speed of car H = $\frac{19875}{265} = 75$ km/h

Required difference = $125 - 75 = 50$ km/h

Hence, option D is correct.

26.

	Total distance covered in 15 days	Average Speed during 15 days
Car A	$22 \times 8 \times 15 = 2640$ km	$2640/48 = 55$ km/h
Car B	$15 \times 12 \times 15 = 2700$ km	$2700/50 = 54$ km/h
Car C	$25 \times 9 \times 15 = 3375$ km	$3375/45 = 75$ km/h
Car D	$18 \times 20 \times 15 = 5400$ km	$5400/75 = 72$ km/h
Car E	$24 \times 16 \times 15 = 5760$ km	$5760/90 = 64$ km/h

Let, meeting time = 'n' hours

Relative speed of Car C and Car D for 1st hour = $(75 + 72)$ km/hr = 147 km/hr

As after every hour car C increases its speed by 6 km/h and car D decreases its speed by 3 km/h.

So after every hour their relative speed increases by $(6 - 3)$ km/hr = 3km/hr

So the speed after 1st hour will be 150, 153, 156 and so on.

Total distance between point P and point Q = 765

$$\Rightarrow (n/2) [2 \times 147 + 3(n - 1)] = 765$$

$$\Rightarrow (n/2)[294 + 3n - 3] = 765$$

$$\Rightarrow n = 5$$

So after 5 hours Car C and Car D meet each other.

In 5 hours Car C covered a distance of $(75 + 81 + 87 + 93 + 99)$ km = 435 km [As the speed increases every hour by 6km/hr]

Car C has to cover total distance of $(765 - 435) = 330$ km after meeting car D.

Therefore, required time = $\frac{330}{75} = 4.4$ hours [It is divided by 75 because after meeting it travels at its initial speed]

Hence, option C is correct.

27. Let, marked price of book B = Rs. x

Discount in store 2 = 12%

∴ Selling price in store 2

$$\Rightarrow \text{Rs. } \left(x - x \times \frac{12}{100}\right) = \text{Rs. } (x - 0.12x) = \text{Rs. } 0.88x$$

Discount in store 3 = 8%

∴ Selling price in store 3

$$\Rightarrow \text{Rs. } \left(x - x \times \frac{8}{100}\right) = \text{Rs. } (x - 0.08x) = \text{Rs. } 0.92x$$

According to problem,

$$\Rightarrow \frac{1}{2} (0.88x + 0.92x) = 585$$

$$\Rightarrow \frac{1}{2} \times 1.8x = 585$$

$$\Rightarrow 0.9x = 585.$$

$$\Rightarrow x = \frac{585}{0.9}$$

$$\Rightarrow x = 650$$

∴ Marked price of book B = Rs. 650

∴ Selling price of book B in store 2 = Rs. $(0.88 \times 650) = \text{Rs. } 572$

Hence, option D is correct.



28. Let, marked price of book A = Rs. x

Discount in store 1 = 12%

∴ Selling price in store 1

$$\Rightarrow \text{Rs.} \left(x - x \times \frac{12}{100} \right) = \text{Rs.} (x - 0.12x) = \text{Rs.} 0.88x$$

According to problem,

$$\Rightarrow 0.88x = 396$$

$$\Rightarrow x = \frac{396}{0.88}$$

$$\Rightarrow x = 450$$

∴ Marked price of book A = Rs. 450

Let, discount in store 2 = a%

∴ Selling price in store 2

$$\Rightarrow 450 - 450 \times \frac{a}{100} = \text{Rs.} (450 - 4.5a)$$

Discount in store 3 = 24%

∴ Selling price in store 3

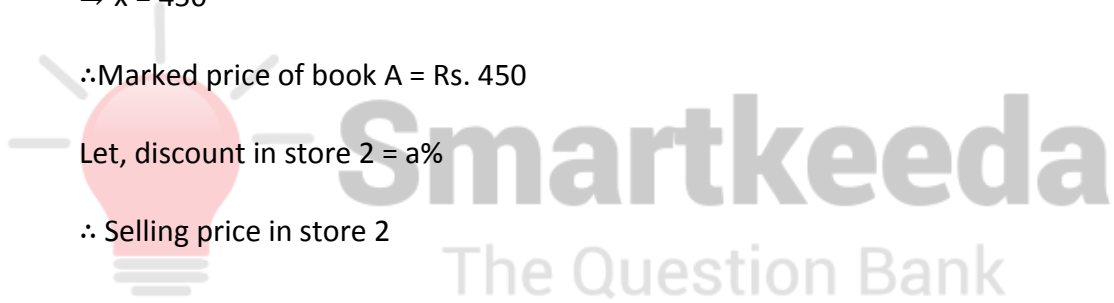
$$\Rightarrow \text{Rs.} \left(x - x \times \frac{24}{100} \right) = \text{Rs.} (x - 0.24x) = \text{Rs.} 0.76x = \text{Rs.} .76 \times 450 = \text{Rs.} 342$$

According to problem,

$$\Rightarrow (450 - 4.5a) - 342 = 36$$

$$\Rightarrow 450 - 4.5a = 378$$

$$\Rightarrow 4.5a = 72$$



$$\Rightarrow a = \frac{72}{4.5}$$

$$\Rightarrow a = 16$$

∴ The discount percentage in store 2 = 16%

Hence, option C is correct.

29. Let, marked price of book A = Rs. x

Discount in store 1 = 12%

∴ Selling price in store 1

$$\Rightarrow \text{Rs.} \left(x - x \times \frac{12}{100} \right) = \text{Rs.} (x - 0.12x) = \text{Rs.} 0.88x$$

Let, cost price of book A = Rs. y

Profit by store 1 = 10%

∴ Selling price in store 1

$$\Rightarrow \text{Rs.} \left(y + y \times \frac{10}{100} \right) = 1.1y$$

According to problem,

$$\Rightarrow 1.1y = 0.88x$$

$$\Rightarrow y = 0.8x$$

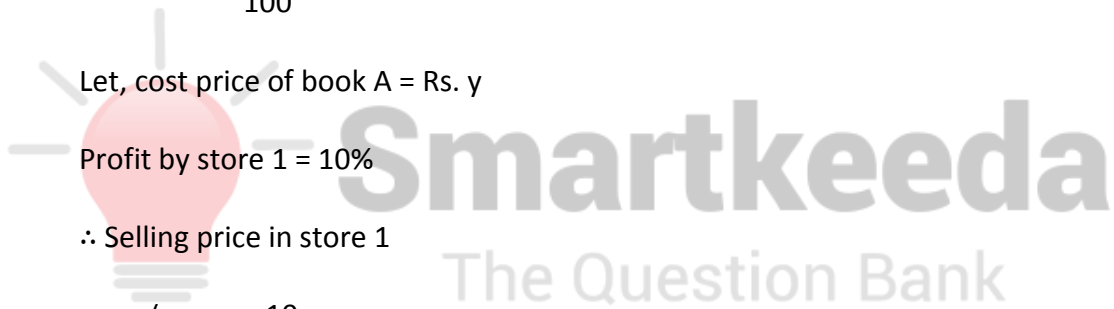
∴ Cost price of book A = 0.8x

Discount in store 3 = 24%

∴ Selling price in store 3

$$\Rightarrow \text{Rs.} \left(x - x \times \frac{24}{100} \right) = \text{Rs.} (x - 0.24x) = \text{Rs.} 0.76x$$

∴ Loss = Rs. (0.8x - 0.76x) = Rs. 0.04x



∴ Loss percentage,

$$\Rightarrow \frac{0.04x}{0.8x} \times 100\% \Rightarrow 5\%$$

Hence, option B is correct.

30. Let, marked price book D = Rs. x

Discount in store 2 = 6%

$$\therefore \text{Selling price in store 2} = \text{Rs. } \left(x - x \times \frac{6}{100} \right) = \text{Rs. } 0.94x$$

Discount in store 3 = 9%

$$\therefore \text{Selling price in store 3} = \text{Rs. } \left(x - x \times \frac{9}{100} \right) = \text{Rs. } 0.91x$$

According to problem,

$$\Rightarrow (0.94x + 0.91x) = 1110 \times 2$$

$$\Rightarrow 1.85x = 1110 \times 2$$

$$\Rightarrow x = \frac{2220}{1.85}$$

$$\Rightarrow x = 1200$$

∴ The marked price of book D = Rs. 1200

Hence, option A is correct.

31. Let, marked price of book C = Rs. x

Let, discount percentage on book C in store 2 = a%

Discount percentage on book C in store 1 = 15%

According to problem,

$$\Rightarrow \frac{15}{a} = \frac{3}{2}$$

$$\Rightarrow a = 10$$

\therefore discount percentage on book C in store 2 = 10%

$$\therefore \text{Selling price of book C in store 1} = \text{Rs. } \left(x - x \times \frac{15}{100}\right) = \text{Rs. } 0.85x$$

According to problem,

$$\Rightarrow 0.85x = 221$$

$$\Rightarrow x = \frac{221}{0.85}$$

$$\Rightarrow x = 260$$

\therefore marked price of book C = Rs. 260

Discount percentage on book C in store 2 = 10%

\therefore Selling price of book C in store 2

$$= \text{Rs. } \left(260 - 260 \times \frac{10}{100}\right) = \text{Rs. } 234$$

Hence, option B is correct.

- 32.** For z, using proportions, for same flow rate in both tanks A & B for either pipe 2 & 3,

$$\frac{z}{9} = \frac{4.5}{3}$$

$$\text{or, } z = 4.5 \times 3 = 13.5 \text{ hrs}$$

For x, using proportions, for same flow rate in both tanks B & C for either pipe 1 & 2,

$$\frac{x}{9} = \frac{15}{18}$$

$$\text{or, } x = \frac{15}{2} = 7.5 \text{ hrs}$$

Then, let speed during home to office travel be 'q' km/hr.

Distance from home to office = (q km/hr) (z hrs) = (q km/hr) (13.5 hrs) = 13.5q km

Distance from office to home = (49 km/hr) (x hrs) = (49 km/hr) (7.5 hrs) = 367.5 km

Equating distances, we have,

Distance from home to office = Distance from office to home

$$13.5q = 367.5$$

$$q = \frac{49 \times 7.5}{13.5} = 27 \text{ km/hr (approximately)}$$

Hence, option C is correct.

33. Let the rate of flow of in-let water be 'P' m³/hr.

Original time required for Tank A to fill by pipe 3 = 4.5hrs

Then, capacity of tank = (flow rate) x (time taken to fill) = 4.5 × P = (4.5P)m³

Also,

Effective rate of flow of water = (P – 15) m³/hr

Time required with leakage = 5.4 hrs

Capacity of tank = (flow rate) x (time taken to fill) = (P – 15) (5.4 hrs)

Equating the capacity of tank,

$$(4.5P) = (P - 15) (5.4)$$

$$(5.4 - 4.5) P = 5.4 \times 15$$

$$P = \frac{5.4 \times 15}{0.9} = 6 \times 15 = 90 \text{ m}^3/\text{hr}$$

Hence, option B is correct.

34. Time recorded for filling Tank B with pipe 2 = 9hrs

If this is 17% more than actual time (say, t hrs),

Then, $t + (17\% \text{ of } t) = 9$

$$1.17t = 9$$

$$\text{or, } t = \frac{9}{1.17} = \frac{900}{117} = \frac{100}{13} \text{ hrs}$$

In table, 9hrs is replaced by $(100/13)$ hrs.

For x, using proportions, for same flow rate in both tanks B & C for either pipe 1 & 2 ,

$$\frac{x}{9} = \frac{15}{18}$$

$$\text{or, } x = \frac{15}{2} = 7.5 \text{hrs(i)}$$

For y(remaining unaltered), using proportions, for same flow rate in both tanks A & C for either pipe 1 & 3,

$$\frac{y}{15} = \frac{4.5}{2.5}$$

$$\text{or, } y = \frac{15 \times 4.5}{2.5} = 27 \text{hrs ... (ii)}$$

For 'NEW' z, using proportions, for same flow rate in both tanks A & B for either pipe 2 & 3,

$$\frac{z}{100/13} = \frac{4.5}{3}$$

$$\text{or, } z = 1.5 \times \frac{100}{13} = \frac{150}{13} \text{ hrs....(iii)}$$

$$\text{Then, } (\text{new } y/z) - (\text{old } x/y) = \frac{27}{150/13} - \frac{7.5}{27}$$

$$= \frac{117}{50} - \frac{5}{18} = \frac{(117 \times 9) - (5 \times 25)}{450}$$

$$= \frac{1053 - 125}{450} = \frac{928}{450} = \frac{464}{225}$$

Hence, option D is correct.

- 35.** Let the common factor be x. Then, water flow rate in tank B & C is 9x & 2x respectively.

Time required to fill tank B & C with pipe 2 = 9 hrs & 18 hrs respectively.

Then, Volume of Tank B = (water flow rate) (time) = (9x) (9hrs) = 81x

And, Volume of Tank C = (water flow rate) (time) = (2x) (18hrs) = 36x

$$\text{So, } \frac{\text{Volume of Tank B}}{\text{Volume of Tank C}} = \frac{81x}{36x} = \frac{9}{4}$$

$$\text{Or, } \frac{\pi r_B^2 h}{\pi r_C^2 h} = \frac{r_B^2}{r_C^2} = \frac{9}{4}$$

Ratio of area of base of tank b to tank C = $\pi r_B^2 : \pi r_C^2 = r_B^2 : r_C^2 = 9 : 4$

Hence, option A is correct.

- 36.** Total number of students in Electrical engineering in IIT Delhi

$$= \frac{32}{27} \times \frac{17}{20} \times 1080 = 1088$$

Total number of students in Electrical engineering in IIT Bombay = $\frac{19}{22} \times \frac{11}{10} \times 1420 = 1349$

Required difference = 1349 – 1088 = 261

Hence, option C is correct.

- 37.** Total number of students studying in 1st year in Civil in IIT Kharagpur

$$= 35\% \text{ of } \frac{36}{41} \times 1640 = 504$$

Total number of students studying in 2nd year in Civil in IIT Kharagpur =

$$20\% \text{ of } \frac{36}{41} \times 1640 = 288$$

Total number of students studying in 1st year in Civil in IIT Kanpur =

$$\frac{7}{31} \times \frac{31}{28} \times 1260 = 315$$

Total number of students studying in 2nd year in Civil in IIT Kanpur =

$$\frac{9}{31} \times \frac{31}{28} \times 1260 = 405$$

$$\text{Reqd. \%} = \frac{315 + 405}{504 + 288} \times 100 \approx 91\%$$

Hence, option B is correct.

38. Total number of students in Electronics in IIT Bombay

$$= \frac{4}{5} \times 1420 = 1136$$

Total number of students in Electronics in IIT Kanpur =

$$\frac{71}{70} \times 1260 = 1278$$

Required ratio = 8 : 9

Hence, option A is correct.

39. Number of students in civil in IIT Delhi

$$= \frac{17}{20} \times 1080 = 918$$

$$\text{Number of students in civil in IIT Bombay} = \frac{11}{10} \times 1420 = 1562$$

$$\text{Number of students in civil in IIT Kharagpur} = \frac{36}{41} \times 1640 = 1440$$

$$\text{Number of students in civil in IIT Kanpur} = \frac{31}{28} \times 1260 = 1395$$

$$\text{Number of students in civil in IIT Madras} = \frac{13}{16} \times 1584 = 1287$$

Total number of students in civil in all five colleges =

$$918 + 1562 + 1440 + 1395 + 1287$$

$$= 6602$$

Total number of students in Mechanical in all five colleges =

$$1080 + 1420 + 1640 + 1260 + 1584$$

$$= 6984$$

$$\text{Reqd. \%} = \frac{6602}{6984} \times 100 \approx 95\%$$

Hence, option B is correct.

40. Total number of students in Electrical in IIT Kharagpur

$$= \frac{36}{41} \times \frac{23}{18} \times 1640 = 1840$$

$$\text{Total number of students in Electrical in IIT Kanpur} = \frac{31}{28} \times \frac{49}{45} \times 1260 = 1519$$

$$\text{Total number of students in Electrical in IIT Madras} = \frac{13}{16} \times \frac{34}{39} \times 1570 = 1122$$

Total number students in Computer Science in IIT Kharagpur, IIT Kanpur, and IIT Madras together

$$= 1840 + 1519 + 1122 + 286 = 4767$$

Hence, option D is correct.



41. Average of total number of mobile phone sold by company A over the years

$$= \frac{153311}{5} = 30662.2$$

The average of total number of mobile phone sold by company F over the years

$$= \frac{95496}{5} = 19099.2$$

$$\text{Required difference} = 30662.2 - 19099.2 = 11563.2 = 11563.$$

Hence, option A is correct.

42. The number of mobile phones sold by Company D in 2013 = 6742

The total number of mobile phones sold in 2013 = 28944 The required percentage

$$= 6742 \times \frac{100}{28944} = 23.29\% \text{ approximately}$$

Hence, option D is correct.

43. The sale of mobile phones by Company A in 2014 = 6532

The sale of mobile phones by Company A in 2013 = 5643

$$\text{The required percentage} = (6532 - 5643) \times \frac{100}{5643} = 15.75\% \text{ approximately}$$

Hence, option B is correct.

44. The average number of mobile phones sold by all the companies together in 2017

$$= \frac{351162}{6} = 58527$$

Hence, option A is correct.

45. The number of mobile phones sold by company E in 2014 = 6210

The number of mobile phones sold by company F in 2013 = 5421 The required percentage

$$= 6210 \times \frac{100}{5421} = 114.55\% \text{ approximately}$$

Hence, option B is correct.

46. Marks obtained by Sahdev in

Psychology = 90% of 120, Written = 68% of 150 and GD = 72% of 150

Marks obtained by Arjun in

Psychology = 85% of 120, Written = 84% of 150 and GD = 52% of 150

Required difference = [90% of 120 + (68 + 72)% of 150] – [85% of 120 + (84 + 52)% of 150]

$$= 90\% \text{ of } 120 + 140\% \text{ of } 150 - 85\% \text{ of } 120 - 136\% \text{ of } 150$$

$$= 5\% \text{ of } 120 + 4\% \text{ of } 150 = 6 + 6 = 12$$

Hence, option E is correct.

47. Marks obtained by Bhim in all the tests = 62% of 50 + 72% of 150 + 58% of 200 + 58% of 150 + 65% of 120

$$= 31 + 108 + 116 + 87 + 78 = 420$$

Similarly,

Marks obtained by Sahdev = 68% of 50 + 68% of 150 + 74% of 200 + 72% of 150 + 90% of 120

$$= 34 + 102 + 148 + 108 + 108 = 500$$

$$\therefore \text{Reqd. ratio} = 420 : 500 = 21 : 25$$

Hence, option C is correct.

48. Req. average = $\frac{120 \times (75 + 65 + 85 + 80 + 90 + 85)\%}{6}$

$$= \frac{120 \times 480}{600} = 96$$

Hence, option E is correct.

49. Req. number = 86% of 50 + 52% of 150 + 87% of 200 + 66% of 150 + 80% of 120

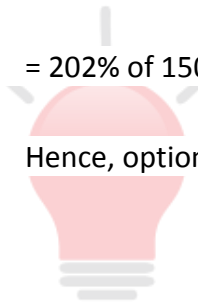
$$= 43 + 78 + 174 + 96 + 99 = 490$$

Hence, option B is correct.

50. Req. difference = $(66 + 84 + 52) \% \times 150 - (65 + 90 + 85) \times 120$

$$= 202\% \text{ of } 150 - 240\% \text{ of } 120 = 303 - 288 = 15$$

Hence, option A is correct.



Smartkeeda
The Question Bank



SmartKeeda
The Question Bank

Presents

TestZone

India's least priced Test Series platform



ALL BANK EXAMS

2019-20 Test Series

@ Just

₹ **499/-**

300+ Full Length Tests

- Brilliant Test Analysis
- Excellent Content
- Unmatched Explanations

JOIN NOW