

Alligation and Mixture

Part 1 - Basic

Model 1: Simple Mixtures

1. How much of salt at 42 paise/kg must be mixed with 25 kg of salt at 24 paise/kg, so that a



profit of 25% is obtained by selling the mixture at 40 paise/kg?

- 1) 25 kg 2) 20 kg 3) 30 kg 4) 24 kg 5) None of these

2. A merchant has 840 kg of rice, part of which he sells at 9% profit and the rest at 16% profit.



He gains 12% profit on the whole. What is the quantity sold at 16% profit?

- 1) 480 kg 2) 240 kg 3) 360 kg 4) 600 kg 5) None of these

3. A trader has 4000 kg of tea, part of which he sells at 8% profit and the rest at 18% profit. He gains 14% on the whole. What quantity of tea was sold at 8% profit?

- 1) 480 kg 2) 200 kg 3) 2400 kg 4) 1600 kg 5) None of these

4. In what ratio should tea at 35 per kg be mixed with tea at 27 per kg so that mixture may cost ₹ 30 per kg?

- 1) 7:2 2) 2:7 3) 3:5 4) 5:3 5) 7:9

Model 2: Compound Mixtures

5. An alloy of zinc and tin contains 35% of zinc by weight. What quantity of zinc must be



added to 400 lb of this alloy such that there is 60% of zinc by weight in the final mixture?

- 1) 400 lb 2) 350 lb 3) 250 lb 4) 380 lb 5) None of these

6. Two vessels A and B contain mixtures of milk and water. The ratio of milk and water in these two vessels is 5:2 and 8:5 respectively. In what ratio must these mixtures be mixed to form a new mixture containing milk and water in 9:4 ratios?
- 1) 7:2 2) 2:7 3) 3:5 4) 5:3 5) 7:9
7. A can contain a mixture of two liquids A and B in the ratio 7:5. When 9 litres of the mixture is drawn off and replaced with liquid B, the ratio of A and B becomes 7:9. What was the initial quantity (in litres) of liquid A in the can?
- 1) 15 2) 28 3) 6.5 4) 21 5) None of these
8. Two vessels A and B contain milk and water mixed in the ratio 4: 3 and 2: 3. In what ratio must these mixtures be mixed to form a new mixture containing half milk and half water?
- 1) 7: 5 2) 1: 2 3) 2: 1 4) 6: 5 5) None of these
9. A mixture of 40 litres of milk & water contains 10% water. How much water should be added to this so that water must be 20% in the new mixture?
- 1) 5 litres 2) 4 litres 3) 6.5 litres 4) 7.5 litres 5) None of these
10. 729 ml of the mixture contains milk and water in the ratio 7:2. How much more water is to be added to get a new mixture containing milk and water in the ratio 7:3?
- 1) 79 ml 2) 81 ml 3) 72 ml 4) 91 ml 5) None of these
11. An alloy of copper and lead contains 35% of copper by weight. If the final percentage of copper is to be 66.66, then what will be the weight of copper which must be added to 400 lb of this alloy? **[April 18, 2015 @ 02m 06s]**
- 1) 400 lb 2) 350 lb 3) 280 lb 4) 380 lb 5) None of these
12. A milk vendor has 2 cans of milk. The first can contains 25% water and the second can contains 50% water. How much milk should he mix from each of the containers so as to get

12 litres of milk such that the ratio of water to milk is 3:5?

- 1) 4 litres and 8 litres 2) 5 litres and 7 litres 3) 6 litres and 6 litres
4) 7 litres and 5 litres 5) None of these

13. In what ratio should two different types of mixtures containing, milk and water in the ratio of 5:1 and 2:1 respectively mixed to obtain a final mixture containing milk and water in the ratio of 3:1?

- 1) 7:5 2) 1:2 3) 2:1 4) 1:1 5) None of these

14. In two alloys, the ratio of zinc to tin is 5:2 and 3:4. If 7 kg of the first alloy and 21 kg of the



second alloy are mixed together to form a new alloy, then what will be the ratio of zinc and tin in the new alloy? **[April 18, 2015 @ 10m 20s]**

- 1) 2:1 2) 1:2 3) 1:1 4) 1:3 5) None of these

Model 3: Removal and Replacement

15. A container has 40 litres of wine. From this container, 4 litres of wine is taken out and



replaced with water. This process is repeated two more times. What will be the final quantity of water (in litres) in the container?

- 1) 12 2) 28 3) 29.16 4) 10.84 5) None of these

16. 6 gallons of wine are drawn from a cask and replaced by 6 gallons of water. 6 gallons of the



mixture are drawn next and again replaced by 6 gallons of water. If the ratio of wine to water in the cask is now 81:19, then what was the quantity of wine (in gallons) in the cask at the beginning of the operation? (There was no water in the cask at first)

[May 30, 2015 @ 16m 30s]

- 1) 60 2) 18 3) 36 4) 24 5) None of these

Model 4: Miscellaneous

17. Deepak has some goats and some hens. If the total number of heads is 90 and the total



number of feet is 248, what is the total number of goats?

- 1) 34 2) 56 3) 48 4) 42 5) None of these

18. An amount of ₹ 780 is distributed among 60 students of a class, such that each boy gets



₹ 15 and each girl gets ₹ 10. Find the number of boys in the class?

- 1) 24 2) 36 3) 40 4) 20 5) None of these

19. A sum of ₹ 12000 is divided into two parts. One part is lent at the simple interest of 6% per



annum and the other at 8% per annum. What is the sum lent at 8% pa if the total interest at the end of 1 year is ₹ 860?

- 1) ₹ 8000 2) ₹ 6000 3) ₹ 9000 4) ₹ 7000 5) None of these

20. A sum of ₹ 16800 is divided into two parts. One part is lent at the simple interest of 6% per



annum and the other at 8% per annum. After 2 years total received is ₹ 19000. What is the sum lent at 6% of simple interest?

- 1) ₹ 12200 2) ₹ 12000 3) ₹ 11000 4) ₹ 10000 5) None of these

Answers

1 - 2	2 - 3	3 - 4	4 - 3	5 - 3	6 - 1	7 - 4	8 - 1	9 - 1	10 - 2
11 - 4	12 - 3	13 - 4	14 - 3	15 - 4	16 - 1	17 - 1	18 - 2	19 - 4	20 - 1

Note: The date and time mentioned against some questions refer to the doubts clarification session on Quantitative Aptitude in which the question was solved.