BLOGS

Practice Questions for CLAT Quantitative Techniques on Mixture and Alligation

Ruchika Mohapatra · 07 Jun 2024

QUESTIONS ON MIXTURE AND ALLIGATION

1. Two solutions contain 20% and 60% alcohol, respectively. If 100 liters of the first solution is mixed with 200 liters of the second, what is the alcohol content of the resultant solution?

A) 40%

B) 43.33%

C) 50%

D) 33.33%

2. How many liters of a 30% salt solution must be mixed with 10 liters of a 60% salt solution to obtain a 40% salt solution?

A) 10 liters

B) 15 liters

C) 20 liters

D) 25 liters

3. A chemist has two mixtures of chemicals. The first mixture contains 40% chemical A and 60% chemical B. The second mixture contains 25% chemical A and 75% chemical B. How much of each mixture should be combined to obtain 50 liters of a new mixture containing 30% chemical A?

A) 30 liters of the first mixture and 20 liters of the second mixture

B) 20 liters of the first mixture and 30 liters of the second mixture

C) 25 liters of each mixture

D) 10 liters of the first mixture and 40 liters of the second mixture

4. A factory produces two grades of oil: one contains 75% refined oil, and the other contains 40% refined oil. A client wants a mixture of these two to create 100 liters of oil with 60% refined oil. How many liters of the 75% refined oil should be used to create the desired mixture?

A) 30 liters

B) 40 liters

C) 60 liters

D) 75 liters

5. A jar contains a solution that is 80% water and 20% sugar. If 50 liters of this solution are mixed with 150 liters of a solution that is 60% water and 40% sugar, what is the percentage of sugar in the resulting mixture?

A) 35%

B) 30%

C) 40%

D) 25%

6. A company has two paint mixtures. The first contains 25% red paint, and the second contains 75% red paint. If the company wants to make 100 liters of a new mixture with 50% red paint, how many liters of the first mixture should they use?

A) 20 liters

B) 30 liters

C) 40 liters

D) 50 liters

7. A pharmacist has two solutions containing medicine. The first solution contains 10% medicine, and the second solution contains 70% medicine. If he wants to prepare 200 liters of a new solution containing 50% medicine, how much of the first solution does he need?

A) 50 liters

B) 70 liters

C) 100 liters

D) 120 liters

8. A jeweler has two alloys. The first alloy is 30% gold, and the second is 70% gold. He wants to create a new alloy containing 60% gold. If he needs 150 grams of this new alloy, how many grams of the second alloy should he use?

A) 50 grams

B) 75 grams

C) 100 grams

D) 120 grams

9. A lab technician has two solutions, one with 25% ethanol and the other with 75% ethanol. If the technician wants to make a 50-liter solution with 60% ethanol, how many liters of the first solution are needed?

A) 5 liters

B) 10 liters

C) 15 liters

D) 20 liters

10. A scientist has two solutions containing acid: Solution A has 25% acid, and Solution B has 60% acid. He wants to make 200 liters of a solution with 45% acid. How much of Solution A should he use?

A) 60 liters

B) 80 liters

C) 120 liters

D) 150 liters

11. A bakery uses two different types of flour: one contains 10% whole wheat, and the other contains 70% whole wheat. If the bakery wants to create 300 kg of flour with 50% whole wheat, how many kilograms of the first flour should they use?

A) 60 kg

B) 100 kg

C) 120 kg

D) 150 kg

12. A manufacturer has two grades of ethanol: Grade A contains 25% pure ethanol, and Grade B contains 75% pure ethanol. If he wants to create 100 liters of a new grade with

50% ethanol, how much of Grade A should he use?

A) 25 liters

B) 30 liters

C) 40 liters

D) 50 liters

13. A perfume manufacturer has two bottles of fragrance oil. Bottle A contains 20% floral oil, and Bottle B contains 70% floral oil. If he wants to make 100 liters of perfume with 40% floral oil, how much of Bottle B does he need?

A) 20 liters

B) 30 liters

C) 40 liters

D) 50 liters

14. A chemist has two solutions containing a certain chemical. Solution A contains 40% of the chemical, while Solution B contains 70% of the chemical. How much of each solution should the chemist mix to get 150 liters of a new solution containing 50% of the chemical?

A) 75 liters of Solution A, 75 liters of Solution B

B) 50 liters of Solution A, 100 liters of Solution B

C) 100 liters of Solution A, 50 liters of Solution B

D) 90 liters of Solution A, 60 liters of Solution B

15. A scientist has two solutions, one containing 30% copper and the other containing 70% copper. He wants to create 200 kg of a new alloy with 50% copper. How much of the first solution does he need?

A) 50 kg

B) 100 kg

C) 120 kg

D) 80 kg

16. A manufacturer has two types of rubber: Type A has 10% synthetic material, and Type B has 60% synthetic material. If he wants to create 100 kg of a new rubber with 40% synthetic material, how much of Type A should he use?

A) 30 kg

B) 40 kg

C) 60 kg

D) 70 kg

17. A pharmacist has two solutions. Solution A contains 10% active ingredient, and Solution B contains 90% active ingredient. If he wants to make 100 liters of a new solution with 40% active ingredient, how much of Solution A should he use?

A) 25 liters

B) 30 liters

C) 40 liters

D) 50 liters

18. A jeweler has two gold alloys. Alloy A contains 20% gold, and Alloy B contains 60% gold. If he wants to make 300 grams of a new alloy containing 40% gold, how much of Alloy A should he use?

A) 150 grams

B) 120 grams

C) 200 grams

D) 100 grams

19. A chemist has two solutions containing a certain acid. Solution A contains 30% acid, while Solution B contains 80% acid. If he wants to create 100 liters of a solution with 50% acid, how much of Solution A should he use?

A) 25 liters

B) 35 liters

C) 45 liters

D) 55 liters

20. A pharmacist has two bottles of medication. Bottle A contains 30% active ingredient, and Bottle B contains 60% active ingredient. He wants to create 100 liters of a new medication with 45% active ingredient. How much of Bottle B should he use?

A) 20 liters

B) 30 liters

C) 40 liters

D) 50 liters

ANSWERS

1. B
2. C
3. B
4. C
5. B
6. D
7. B
8. D
9. C
10. C
11. B
12. D
13. C
14. C
15. B
16. C
17. C
18. A
19. D
20. D

For More Questions on Mixture and Alligation for CLAT, click here!