

Practice Questions for CLAT Quantitative Techniques on Mixture and Alligation

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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

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