108 DAYS ONLINE COACHING DAY(103) - 23/01/2020 THURSDAY

Mixtures and alligation

Name of the candidate *

M3

Place of the candidate *

Thiruvananthapuram

WHATS APP NUMBER (JOINED IN SAI EDUCATION ONLINE) *

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Please watch the following videos and answer the questions that follow

https://youtu.be/zjlKLIlM9l0
https://youtu.be/NVahA5gJBHY

1.A mixture of 150 liters of wine and water contains 20% water. How much more water should be added so that water becomes 25% of the new mixture? * 1 point

- A. 7 liters
- B. 15 liters
- C. 10 liters
- D. 9 liters

2. A vessel contains 20 liters of a mixture of milk and water in the ratio 3:2. 10 liters of the mixture are removed and replaced with an equal quantity of pure milk. If the process is repeated once more, find the ratio of milk and water in the final mixture obtained? * 1 point

- A. 9:1
- B. 4:7
- C. 7:1
- D. 2:5

3. In what ratio should two varieties of sugar of Rs.18 per kg and Rs.24 kg be mixed together to get a mixture whose cost is Rs.20 per kg? * 1 point

- A. 1:3
- B. 3:1
- C. 1:2
- D. 2:1

4. How many liters of oil at Rs.40 per liter should be mixed with 240 liters of a second variety of oil at Rs.60 per liter so as to get a mixture whose cost is Rs.52 per liter? * 1 point

- A. 120 liters
- B. 180 liters
- C. 110 liters
- D. 160 liters

5. Two varieties of wheat - A and B costing Rs. 9 per kg and Rs. 15 per kg were mixed in the ratio 3 : 7. If 5 kg of the mixture is sold at 25% profit, find the profit made? * 1 point

- A. Rs. 13.50
- B. Rs. 14.50
- C. Rs. 15.50
- D. Rs. 16.50
- E. None of these

6. In a mixture of milk and water, the proportion of milk by weight was 80%. If, in a 180 gm mixture, 36 gms of pure milk is added, what would be the percentage of milk in the mixture formed? * 1 point

- A. 80%
- B. 100%
- C. 84%
- D. 87.5%
- E. None of these

7. In a can, there is a mixture of milk and water in the ratio 4 : 5. If it is filled with an additional 8 litres of milk the can would be full and ratio of milk and water would become 6 : 5. Find the capacity of the can? * 1 point

- A. 40
- B. 44
- C. 48
- D. 52
- E. None of these

8. In what ratio should a variety of rice costing Rs. 6 per kg be mixed with another variety of rice costing Rs. 8.75 per kg to obtain a mixture costing Rs. 7.50 per kg? * 1 point

- (●) A. 5 : 6
- ( ) B. 3 : 4
- ( ) C. 7 : 8
- ( ) D. 8 : 9
- ( ) E. None of these

9. A mixture of 70 litres of milk and water contains 10% water. How many litres of water should be added to the mixture so that the mixture contains 12 1/2% water? * 1 point

- (●) A. 2
- ( ) B. 8
- ( ) C. 4
- ( ) D. 5
- ( ) E. None of these

10. There are three vessels of equal capacity holds milk and water in the ratio of 1:2,2:3 and 1:4if the content of all the three vessel s are mixed in a single vessel then.Find the ratio of milk and water in the new vessel? * 1 point

- ( ) 7:2
- ( ) 17:3
- (●) 14:31
- ( ) 14:3

11. In a 729 litres mixture of milk and water ,the ratio of milk to water is 7:2.To get a new mixture containing milk and water in the ratio 7:3,the amount of water to be added is? * 1 point

- 80 l
- 81 l
- 79l
- 78 l

12. In what ratio must a shopkeeper mix two types of rice worth Rs. 50 kg and Rs. 70 kg, so that the average cost of the mixture is Rs. 65 kg? * 1 point

- 1:3
- 11:13
- 11:31
- 11:23

13. A container contains 40 litres of milk. From this container 4 litres of milk was taken out and replaced by water. This process was repeated further two times. How much milk is now contained by the container? * 1 point

- A. 29.16 litres
- B. 28 litres
- C. 28.2 litres
- D. 26 litres

14. Milk and water in two vessels A and B are in the ratio 4:3 and 2:3 respectively in what ratio the liquids in both the vessels should be mixed to obtain a new mixture in vessel C containing half milk and half water? * 1 point

- A. 1:1
- B. 1:3
- C. 1:2
- D. 7:5

15. How much water must be added to a bucket which contains 40 liters of milk at the cost price of Rs.3.50 per liter so that the cost of milk reduces to Rs.2 per liter? * 1 point

- A. 25 liters
- B. 28 litres
- C. 30 liters
- D. 35 liters

16. In what proportion must water be added to spirit to gain 20% by selling it at the cost price? * 1 point

- A. 2:5
- B. 1:5
- C. 3:5
- D. 4:5

17. Find the ratio in which rice at Rs. 7.20 a kg be mixed with rice at Rs. 5.70 a kg to produce a mixture worth Rs. 6.30 a kg. * 1 point

- A. 1 : 3
- B. 2 : 3
- C. 3 : 4
- D. 4 : 5

18. In what ratio must a grocer mix two varieties of tea worth Rs. 60 a kg and Rs. 65 a kg so that by selling the mixture at Rs. 68.20 a kg he may gain 10%? * 1 point

- A. 3 : 2
- B. 3 : 4
- C. 3 : 5
- D. 4 : 5

19. Sum of Rs.118 was shared among 50 boys and girls,each girl receive Rs.2.60 and boy receive Rs.1.80.Find the number of girls. * 1 point

- 53
- 55
- 35
- 33

20. A Mixture contain 88% of sulphur,another mixture contain 70% of sulphur.In order to get 84% of sulphur,in what ratio these two must be mixed. * 1 point

- A) 2:7
- B)7:2
- C)7:4
- D)4:5

21. In what ratio water be mixed with juice costing Rs.12 per liter to obtain a mixture worth of Rs.8 per litre? * 1 point

- A)2:3
- B)2:1
- C)1:2
- D)3:2

22. In what proportion must sugar at Price 4.10 per kg must be mixed with weat at Price 4.60 per kg, so that the mixture be worth Rs 4.30 a Kg ? * 1 point

- A)3:2
- B)2:3
- C)5:3
- D)None of these

23. 400 gm spirit solution has 30 % spirit in it , what is the ratio of spirit should be added to make it 80 % in the solution ? * 1 point

- (●) A)2:5
- ( ) B)4:3
- ( ) C)5:2
- ( ) D)2:7

24. One alloy contains silver and copper in the ratio 5:1 and the other contains in the ratio 7:2 respectively. What weights of the 2 must be melted together, so as to make a 5 lb mass with 80% silver? * 1 point

- ( ) A)5:3
- ( ) B)3:2
- (●) C)2:3
- ( ) D)2:5

25. Box A contains wheat worth Rs.30 per kg and box B contains wheat worth Rs.40 per kg.If both A and B are mixed in the the ratio 4:7 then the price of mixture per kg is * 1 point

- (●) A)36.36
- ( ) B)35.80
- ( ) C)42.50
- ( ) D)31.30

Thankyou!!!