D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS)
APTITUDE TEST

ALLIGATION OR MIXTURE- TEST 24

1. A 20 litre mixture of milk and water contains milk and water in the ratio 3 : 2. 10 litres of the mixture is removed and replaced with pure milk and the operation is repeated once more. At the end of the two removals and replacement, what is the ratio of milk and water in the resultant mixture?

a) 17 : 3 b) 9 : 1
c) 3 : 17 d) 5 : 3

2. In what ratio,water must be mixed with fruit juice costing Rs.24 per litre so that the juice would be worth of Rs.20 per litre?

a) 1:4 b) 1:5
c) 1:6 d) 2:5

3. A vessel is filled with liquid, 3 parts of which are water and 5 parts syrup. How much of the mixture must be drawn off and replaced with water so that the mixture may be half water and half syrup?

a) 1/3 b) 1/4
c) 1/5 d) 1/7

4. 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?

a) 26 litres b) 29.16 liters
c) 28 liters d) 28.2 liters

5. One type of liquid contains 25 % of benzene, the other contains 30% of benzene. A can is filled with 6 parts of the first liquid and 4 parts of the second liquid. Find the percentage of benzene in the new mixture.

a) 28 % b) 25 %
c) 30 % d) 27%

6. The respective ratio of zinc and copper in the first and second alloy are 1 : 2 and 2 : 3 respectively. In what ratio should these two alloys be mixed to form a new alloy in which the two elements are in ratio 5 : 8?

a) (7: 11) b) (3: 10)
c) (9: 11) d) (5: 11)

7. In a container containing a mixture of 60 litres, the ratio of water to spirit is 4: 1. How much spirit should be added to make the ratio 3: 2?

a) 20 litres b) 27 litres
c) 16 litres d) 9 litres

8. A company is creating a new signature drink. They are using two alcoholic ingredients in the drink vodka and gin. They are using two non-alcoholic ingredients in the drink: orange juice and cranberry juice. The alcoholic ingredients contain 50% alcohol. The non- alcoholic ingredients contain no alcohol. How many litres of non-alcoholic ingredients must be added to 5 litres of alcoholic ingredients to produce a mixture that is 20% alcohol?

a) 8 b) 6.5
c) 7.5 d) 9

9. Rani mixes 70kg of sugar worth Rs.28.50 per kg with 100kg of sugar worth Rs.30.50 per kg. At what rate shall he sell the mixture to gain 10% ?

a) Rs.32.64 b) Rs.31.50
c) Rs.30.46 d) Rs.29.75

10. In a 70 litres mixture of milk and water, % of water is 30%. The milkman gave 20 litres of this mixture to a customer and then added 20 litres of water to the remaining

mixture. What is the % of milk in the final mixture ?

a) 48% b) 50%
c) 40% d) 53%

11. A mixture contains A and B in the ratio 2 : 5. 7 litres of mixture is replaced by 18 litres of A and the new ratio becomes 8 : 11 respectively. What is the amount of A present in the original mixture?

a) 20 litres b) 18 litres
c) 44 litres d) 24 litres

12. A can contains milk and water in the ratio 3:1. A part of this mixture is replaced with milk, and now the new ratio of milk to water is 15:4.What proportion of original mixture had been replaced by milk?

a) (9/19) b) (8/19)
c) (6/17) d) (3/19)

13. A 132 litres of mixture contains milk and water in the ratio 5 : 7. How much milk need to be added to this mixture so that the new ratio is 13 : 11 respectively?

a) 36 litres b) 40 litres
c) 28 litres d) 32 litres

14. A vessel contains mixture of milk and water mixed in the ratio of 9 : 4 respectively. 78 litres of the mixture is taken out of the vessel and replaced with 44 litres of water, so that the ratio of the water to milk in the vessel becomes 8 : 7 respectively. Find the final quantity of mixture in the vessel.

a) 90 litres b) 105 litres
c) 120 litres d) 135 litres

15. A container has a mixture of milk and water in the ratio 7: 4, respectively. 88 litres of mixture is taken out of the container and is replaced with another mixture, which contains milk and water in the ratio 3: 2, such that the ratio of milk to water in the container becomes 5: 3, respectively. Find the difference between quantity of milk and water present initially in the container if quantity of milk in final mixture is 120 litres.

a) 72 litres b) 45 litres
c) 60 litres d) 30 litres

16. There are two barrels - A & B. Barrel - A contains 80 litres mixture of petrol and kerosene oil in the ratio of 7 : 3 and barallel B contains petrol and kerosene oil in the ratio 5 : 9. 20 litres mixture of barallel A is poured into barallel B, due to which ratio of petrol and kerosene oil in barallel B becomes 11 : 15. Then, find the initial quantity of mixture in

a) 72 litres b) 90 litres
c) 78 litres d) 84 litres

17. Rice worth Rs. 120 per kg and Rs. 130 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth Rs. 170 per kg, the price of the third variety per kg will be?

a) 120 b) 150
c) 180 d) 160

18. An alloy contains Brass, Iron and Zinc In the ratio 2:3:1 and another contains Iron, zinc and lead In the ratio 5:4:3.lf equal weights of both alloys are melted together to form a third alloy, then what will be the weight of lead per kg in new alloy?

a) (1/4) b) (1/8)
c) (1/6) d) (1/10)

19. A dishonest milkman professes to sell his milk at cost price but he mixes it with water and thereby gains 25%. The percentage of water in the mixture is:

a) 4% b) $6\frac{1}{4}\%$

c) 25% d) 25%

20.How many kilogram of sugar costing Rs. 9 per kg must be mixed with 27 kg of sugar costing Rs. 7 per kg so that there may be a gain of 10% by selling the mixture at Rs. 9.24 per kg?

a) 36 kg b) 42 kg

c) 54 kg d) 63 kg

21. 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?

a) 26.34 litres b) 27.36 litres

c) 28 litres d) 29.16 litres

22. A jar full of whisky contains 40% alcohol. A part of this whisky is replaced by another containing 19% alcohol and now the percentage of alcohol was found to be 26%. The quantity of whisky replaced is:

a) 1/3 b) 2/3

c) 2/5 d) 3/5

23. In what ratio must water be mixed with milk to gain $16\frac{2}{3}\%$ on selling the mixture at cost price?

a) 1 : 6 b) 6 : 1

c) 2 : 3 d) 4 : 3

24. 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%?

a) 3 : 2 b) 3 : 4

c) 3 : 5 d) 4 : 5

25. The cost of Type 1 rice is Rs. 15 per kg and Type 2 rice is Rs. 20 per kg. If both Type 1 and Type 2 are mixed in the ratio of 2 : 3, then the price per kg of the mixed variety of rice is:

a) Rs. 18 b) Rs. 18.50

c) Rs. 19 d) Rs. 19.50