Directions : *Mark (✓) against the correct answer :*

1. In what ratio must a grocer mix two varieties of pulses costing Rs. 15 and Rs. 20 per kg respectively so as to get a mixture worth Rs. 16.50 per kg ? **(R.R.B. 2003)**

   (*a*) 3 : 7 (*b*) 5 : 7 (*c*) 7 : 3 (*d*) 7 : 5

2. 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. **(IGNOU, 2008)**

   (*a*) 1 : 3 (*b*) 2 : 3 (*c*) 3 : 4 (*d*) 4 : 5

3. In what ratio must tea at Rs. 62 per kg be mixed with tea at Rs. 72 per kg so that the mixture must be worth Rs. 64.50 per kg ?

   (*a*) 3 : 1 (*b*) 3 : 2 (*c*) 4 : 3 (*d*) 5 : 3

4. In what ratio must water be mixed with milk costing Rs. 12 per litre to obtain a mixture worth of Rs. 8 per litre ?

   (*a*) 1 : 2 (*b*) 2 : 1 (*c*) 2 : 3 (*d*) 3 : 2

5. 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 : **(M.B.A. 2002)**

   (*a*) Rs. 18 (*b*) Rs. 18.50 (*c*) Rs. 19 (*d*) Rs. 19.50

6. 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

(S.S.C. 2004)

7. How many kilograms 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

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

(L.I.C.A.A.O. 2003)

(a) 1 : 6 (b) 6 : 1 (c) 2 : 3 (d) 4 : 3

9. 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) 20% (d) 25%

10. Two vessels A and B contain spirit and water mixed in the ratio 5 : 2 and 7 : 6 respectively. Find the ratio in which these mixture be mixed to obtain a new mixture in vessel C containing spirit and water in the ratio 8 : 5 ?

(a) 4 : 3 (b) 3 : 4 (c) 5 : 6 (d) 7 : 9

11. Two vessels A and B contain milk and water mixed in the ratio 8 : 5 and 5 : 2 respectively. The ratio in which these two mixtures be mixed to get a new mixture containing $69\frac{3}{13}\%$ milk, is :

(a) 2 : 7 (b) 3 : 5 (c) 5 : 2 (d) 5 : 7

12. A milk vendor has 2 cans of milk. The first contains 25% water and the rest milk. The second 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 ?

(a) 4 litres, 8 litres (b) 6 litres, 6 litres
(c) 5 litres, 7 litres (d) 7 litres, 5 litres

13. One quality of wheat at Rs. 9.30 per kg is mixed with another quality at a certain rate in the ratio 8 : 7. If the mixture so formed be worth Rs. 10 per kg, what is the rate per kg of the second quality of wheat ?

(a) Rs. 10.30 (b) Rs. 10.60 (c) Rs. 10.80 (d) Rs. 11

14. Tea worth Rs. 126 per kg and Rs. 135 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth Rs. 153 per kg, the price of the third variety per kg will be :

(S.S.C. 1999)

(a) Rs. 169.50 (b) Rs. 170 (c) Rs. 175.50 (d) Rs. 180

15. A merchant has 1000 kg of sugar, part of which he sells at 8% profit and the rest at 18% profit. He gains 14% on the whole. The quantity sold at 18% profit is :

(a) 400 kg (b) 560 kg (c) 600 kg (d) 640 kg

16. 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) $\frac{1}{3}$ (b) $\frac{2}{3}$ (c) $\frac{2}{5}$ (d) $\frac{3}{5}$

17. 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

18. 8 litres are drawn from a cask full of wine and is then filled with water. This operation is performed three more times. The ratio of the quantity of wine now left in cask to that of the water is 16 : 65. How much wine did the cask hold originally ?

(N.I.F.T. 2003)

(*a*) 18 litres (*b*) 24 litres (*c*) 32 litres (*d*) 42 litres

19. A can contains a mixture of two liquids A and B in the ratio 7 : 5. When 9 litres of mixture are drawn off and the can is filled with B, the ratio of A and B becomes 7 : 9. How many litres of liquid A was contained by the can initially ?

(*a*) 10 (*b*) 20 (*c*) 21 (*d*) 25

20. 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*) $\frac{1}{3}$ (*b*) $\frac{1}{4}$ (*c*) $\frac{1}{5}$ (*d*) $\frac{1}{7}$