Alligation and mixture test

Q1. 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) 720 kg

Q2. The ratio in which a man must mix rice at Rs. 10.20 per kg and Rs. 14.40 per kg so as to make a mixture worth Rs. 12.60 per kg is:

(a) 4:5 (b) 3:4 (c) 4 : 3 (d) 18:24

Q3. Two vessels A and B contain milk and water mixed in the ratio of 4 : 3 and 2 : 3. The ratio in which these mixtures be mixed to form a new mixture containing half milk and half water is:

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

Q4. 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?

(a) 10 litres (b) 20 litres (c) 30 litres (d) 40 litres (e) None of these

Q5. Find the proportion in which three types of sugar at Rs.12, Rs.14, and Rs.20, may be mixed so as to obtain a mixture worth Rs.15 per kg?

(a) 3:12:16 (b) 4:12:15 (c) 5:5:4 (d) 5:15:6

Q6. Two alloys are both made up of copper and tin. The ratio of copper and tin in the first alloy is 1 : 3 and in the second alloy is 2 : 5. In what ratio should the two alloys be mixed to obtain a new alloy in which the ratio of tin and copper be 8 : 3?

(a) 5:11 (b) 4:7 (c) 3:5 (d) 3:8

Q7. The average score obtained by girls is 40 Marks and that of boys is 60. If the mean of the class is 52 marks and there are 120 students in class. Find the number of girls in class.

(a) 48 (b) 72 (c) 96 (d) None of these

Q8. A vessel is filled with liquid, 3 parts of which are water and 5 parts are 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) ¼ (c) 1/5 (d) 1/7 (e) None of these

Q9. A can contains a mixture of two liquids A and B is 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

Q10. In two types of stainless steel, the ratio of chromium and steel are 2 : 11 and 5 : 21 respectively. In what proportion should the two types be mixed so that the ratio of chromium to steel in the mixed type becomes 7 : 32?

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

Answer key

1	C	3	D	5	C	7	A	9	C
2	B	4	A	6	B	8	C	10	A