ALLIGATION & MIXTURES

Q. 1 729 ml of a mixture contains milk and water in the ratio 7:2. How much more water is to be added to get a new mixture containing milk and water in the ratio 7:3?

(a) 81 ml (b) 60 ml (c) 71 ml (d) 52 ml

Q.2 A shopkeeper bought 30 kg of rice at the rate of Rs. 70 per kg and 20 kg of rice at the rate of Rs. 70.75 per kg. If he mixed the two brands of rice and sold the mixture at Rs. 80.50 per kg, his gain is

(a) Rs. 450 (b) Rs. 510 (c) Rs. 525 (d) Rs. 485

Q.3 Two alloys contain tin and iron in ratio of 1:2 and 2:3. If the two alloys are mixed in the proportion of 3:4 respectively (by weight), the ratio of tin and iron in the newly formed alloy is

(a) 10:21 (b) 13:22 (c) 14:25 (d) 12:23

Q.4 Three utensils contain equal quantity of mixtures of milk and water in the ratio 6:1, 5:2 and 3:1 respectively. If all the solutions are mixed together, the ratio of milk and water in the final mixture is

(a) 65:28 (b) 65:19 (c) 19:65 (d) 19:28

Q.5 60 kg of an alloy A is mixed with 100 kg of alloy B. If alloy A has lead and tin in the ratio 3:2 and alloy B has tin and copper in ratio 1:4, the amount of tin in the new alloy is

(a) 80 kg (b) 44 kg (c) 53 kg (d) 24 kg

Q.6 The milk and water in two vessel A and B are in the ratio 4:3 and 2:3 respectively. In what ratio, the liquids in both the vessels be mixed to obtain a new mixture in vessel C containing half milk and half water?

(a) 7:5 (b) 5:2 (c) 3:11 (d) 1:2

Q.7 20 liters of a mixture contains 20% alcohol and the rest water. If 4 liters of water be mixed in it, the percentage of alcohol in the new mixture will be

(a) 33.33% (b) 16.67% (c) 25% (d) 12.5%

Q.8 There are two containers of equal capacity. The ratio of milk to water in the first container is 3:1, in the second container 5:2. If they are mixed up the ratio of milk to water in the mixture will be

(a) 28:41 (b) 41:28 (c) 15:41 (d) 41:15

Q.9 Two vessel contain milk and water in ratio 3:2 and 7:3. Find the ratio in which the contents of the two vessels have to be mixed to get a new mixture in which the ratio of milk and water is 2:1.

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

Q.10 A jar contains a mixture of two liquid A and B in the ratio of 4:1. When 10 liters of mixture is replaced with liquid B, the ratio becomes 2:3. The volume of liquid A present in the jar earlier was

(a) 20 liters (b) 10 liters (c) 16 liters (d) 15 liters

Q.11 In 60 liters beverage, the ratio of syrup and water is 3:7. If the ratio of the syrup and water is to be made 2:5, then the amount of water to be further added is

(a) 5 liters (b) 2.5 liters (c) 2 liters (d) 3 liters

Q.12 A container has 80 L of milk, from this container 8 L of milk was taken out and replaced by water. The process was further repeated twice. The value of milk in the container after that is:

(a) 85.32 L (b) 58.23 L (c) 85.23 L (d) 58.32 L

Q.13 An alloy contains copper, zinc and nickel in the ratio of 5:3:2. The quantity of nickel in kg that must be added to 100 kg of this alloy to have the new ratio 5:3:3 is

(a) 8 (b) 10 (c) 12 (d) 15

Q.14 A can contain a mixture of two liquid A and B in ratio 7:5. When 9 liters of mixture are drawn off and the can is filled with B, the ratio of A and B becomes 7:9. Liters of liquid A contained by the can initially was

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

Q.15 The ratio of the quantities of an acid and water in a mixture is 1:3. If 5 liters of acid is further added to the mixture, the new ratio becomes 1:2. The quantity of new mixture in liters is

(a) 32 (b) 40 (c) 42 (d) 45

Q.16 Two equal vessels are filled with the mixture of water and milk in the ratio of 3:4 and 5:3 respectively. If the mixtures are poured into a third vessel, the ratio of water and milk in the third vessel will be

(a) 15:12 (b) 53:59 (c) 20:9 (d) 59:53

Q.17 The ratio of milk and water in mixture of four containers are 5:3, 2:1, 3:2 and 7:4 respectively. In which container is the quantity of milk, relative to water, minimum?

(a) First (b) Second (c) Third (d) Fourth

Q.18 In an alloy, the ratio of copper and zinc is 5:2. If 1.250 kg of zinc is mixed in 17 kg 500 g alloy, then the ratio of copper and zinc will be

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

Q.19 40 L of a mixture of milk and water contains 10 % water. How much water must be added to make the water 20 % in the new mixture?
(a) 5 (b) 4 (c) 10 (d) 6

Q.20 In what ratio must a grocer mix teas at 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