

- 37.** The ratio of the number of boys and girls in a school is 3:2. If 20% of the boys and 25% of the girls are scholarship holders, the percentage of the school students who are not scholarship holders is

(1) 56 (2) 78  
(3) 70 (4) 80

(SSC CGL Tier-II (CBE)  
Exam. 30.11.2016)

- 38.** If 35% of A's income is equal to 25% of B's income, then the ratio of A's income to B's income is

(1) 7 : 5 (2) 5 : 7  
(3) 4 : 7 (4) 4 : 3

(SSC CGL Tier-I (CBE)  
Exam. 09.09.2016 (IInd Sitting))

**TYPE-V**

- 1.** A sample of 50 litres of glycerine is found to be adulterated to the extent of 20%. How much pure glycerine should be added to it so as to bring down the percentage of impurity to 5% ?

(1) 155 litres (2) 150 litres  
(3) 150.4 litres (4) 149 litres

(SSC CGL Prelim Exam. 08.02.2004  
(Second Sitting))

- 2.** 1 litre of water is added to 5 litres of alcohol-water solution containing 40% alcohol strength. The strength of alcohol in the new solution will be

(1) 30% (2) 33%

(3)  $33\frac{2}{3}\%$  (4)  $33\frac{1}{3}\%$

(SSC CGL Prelim Exam. 04.02.2007  
(First Sitting))

- 3.** If 4 litres of water is evaporated on boiling from 12 litres of salt solution containing 7 percentage salt, the percentage of salt in the remaining solution is

(1) 10.5% (2) 11.5%  
(3) 12% (4) 13%

(SSC CPO S.I. Exam. 06.09.2009)

- 4.** A vessel has 60 litres of solution of acid and water having 80% acid. How much water be added to make it a solution in which acid forms 60% ?

(1) 48 litres (2) 20 litres  
(3) 36 litres  
(4) None of these

(SSC CHSL DEO & LDC Exam.  
04.12.2011 (1st Sitting (North Zone))

- 5.** 75 gm of sugar solution has 30% sugar in it. Then the quantity of sugar that should be added to the solution to make the quantity of the sugar 70% in the solution, is

(1) 125 gm (2) 100 gm  
(3) 120 gm (4) 130 gm

(SSC CHSL DEO & LDC  
Exam. 04.12.2011

(IInd Sitting (East Zone))

- 6.** A litre of pure alcohol is added to 6 litres of 30% alcohol solution. The percentage of water in the solution is

(1) 50% (2) 65%  
(3) 60% (4) 40%

(SSC CHSL DEO & LDC Exam. 11.12.2011  
(1st Sitting (Delhi Zone))

- 7.** An ore contains 25% of an alloy that has 90% iron. Other than this, in the remaining 75% of the ore, there is no iron. To obtain 60 kg of pure iron, the quantity of the ore needed (in kgs) is approximately :

(1) 250.57 (2) 266.67  
(3) 275.23 (4) 300

(SSC CHSL DEO & LDC  
Exam. 11.12.2011

(IInd Sitting (Delhi Zone))

- 8.** How much water must be added to 100 ml of 80 per cent solution of boric acid to reduce it to a 50 per cent solution ?

(1) 30 ml (2) 40 ml  
(3) 50 ml (4) 60 ml

(SSC CHSL DEO & LDC  
Exam. 11.12.2011

(1st Sitting (East Zone))

- 9.** In one litre of a mixture of alcohol and water, water is 30%. The amount of alcohol that must be added to the mixture so that the part of water in the mixture becomes 15% is :

(1) 1000 ml (2) 700 ml  
(3) 300 ml (4) 900 ml

(SSC CHSL DEO & LDC  
Exam. 11.12.2011

(IInd Sitting (East Zone))

- 10.** One type of liquid contains 20% water and the second type of liquid contains 35% of water. A glass is filled with 10 parts of first liquid and 4 parts of second liquid. The water in the new mixture in the glass is

(1) 37% (2) 46%

(3)  $12\frac{1}{7}\%$  (4)  $24\frac{2}{7}\%$

(SSC CHSL DEO & LDC Exam.  
10.11.2013, IInd Sitting)

- 11.** 40 litres of a mixture of milk and water contains 10% of water, the water to be added, to make the water content 20% in the new mixture is :

(1) 6 litres (2) 6.5 litres  
(3) 5.5 litres (4) 5 litres

(SSC CGL Prelim Exam. 11.05.2003  
(1st Sitting) & (HSL DEO LDC  
Exam. 28.11.2010)

- 12.** How much pure alcohol has to be added to 400 ml of a solution containing 15% of alcohol to change the concentration of alcohol in the mixture to 32% ?

(1) 60 ml (2) 100 ml  
(3) 128 ml (4) 68 ml

(SSC CGL Prelim Exam.  
11.05.2003 (Second Sitting))

- 13.** In 50 gm alloy of gold and silver, the gold is 80% by weight. How much gold should be mixed to this alloy so that the weight of gold would become 95% ?

(1) 200 gm (2) 150 gm  
(3) 50 gm (4) 10 gm

(SSC Section Officer (Commercial  
Audit) Exam. 25.09.2005)

- 14.** 200 litres of a mixture contains 15% water and the rest is milk. The amount of milk that must be added so that the resulting mixture contains 87.5% milk is

(1) 30 litres (2) 35 litres  
(3) 40 litres (4) 45 litres

(SSC Section Officer (Commercial  
Audit) Exam. 30.09.2007  
(Second Sitting))

- 15.** In what ratio must a mixture of 30% alcohol strength be mixed with that of 50% alcohol strength so as to get a mixture of 45% alcohol strength ?

(1) 1 : 2 (2) 1 : 3  
(3) 2 : 1 (4) 3 : 1

(SSC CGL Prelim Exam.  
27.07.2008 (First Sitting))

- 16.** The ratio in which two sugar solutions of the concentrations 15% and 40% are to be mixed to get a solution of concentration 30% is

(1) 2 : 3 (2) 3 : 2  
(3) 8 : 9 (4) 9 : 8

(SSC CGL Prelim Exam.  
27.07.2008 (Second Sitting))

- 17.** 15 litres of a mixture contains alcohol and water in the ratio 1 : 4. If 3 litres of Water is mixed in it, the percentage of alcohol in the new mixture will be

(1) 15% (2)  $16\frac{2}{3}\%$

(3) 17% (4)  $18\frac{1}{2}\%$

(SSC Graduate Level Tier-I  
Exam. 21.04.2013)

- 18.** In an alloy there is 12% of copper. To get 69 kg of copper, how much alloy will be required ?

(1) 424 kg    (2) 575 kg

(3) 828 kg    (4)  $1736\frac{2}{3}$  kg

(SSC CGL Prelim Exam.  
24.02.2002 (Middle Zone))

- 19.** In what ratio must 25% of alcohol be mixed with 50% of alcohol to get a mixture of 40% strength alcohol ?

(1) 1 : 2                      (2) 2 : 1

(3) 2 : 3                      (4) 3 : 2

(SSC CGL Tier-I Re-Exam. (2013)  
20.07.2014 (1st Sitting))

- 20.** 20 litres of a mixture contains 20% alcohol and the rest water. If 4 litres of water be mixed in it, the percentage of alcohol in the new mixture will be

(1)  $33\frac{1}{3}\%$                       (2)  $16\frac{2}{3}\%$

(3) 25%                      (4)  $12\frac{1}{2}\%$

(SSC CGL Tier-II Exam. 21.09.2014)

- 21.** 300 grams of sugar solution has 40% of sugar in it. How much sugar should be added to make it 50% in the solution?

(1) 40 gram                      (2) 10 gram

(3) 60 gram                      (4) 80 gram

(SSC CGL Tier-II Exam,  
25.10.2015, TF No. 1099685)

- 22.** A sugar solution of 3 litre contain 60% sugar. One liter of water is added to this solution. Then the percentage of sugar in the new solution is:

(1) 30                      (2) 45

(3) 50                      (4) 60

(SSC CPO SI, ASI Online  
Exam.05.06.2016) (IInd Sitting))

- 23.** 8 litres of water is added to 32 litres of a solution containing 20% of alcohol in water. What is the approximate concentration of alcohol in the solution now ?

(1) 24%                      (2) 16%

(3) 8%                      (4) 12%

(SSC CPO SI & ASI, Online  
Exam. 06.06.2016) (IInd Sitting))

**TYPE-VI**

- 1.** Price of sugar rises by 20%. By how much percent should the consumption of sugar be reduced so that the expenditure does not change?

(1) 20%                      (2) 10%

(3)  $16\frac{2}{3}\%$                       (4) 15%

(SSC CGL Prelim Exam. 04.07.1999  
(1st Sitting) & (SSC CGL Tier-I  
Exam. 19.06.2011 (1st Sitting))

- 2.** If food prices go up by 10%, by how much should a man reduce his consumption so as not to increase his expenditure?

(1)  $9\frac{1}{11}\%$                       (2) 10%

(3)  $11\frac{1}{9}\%$

(4) The data is not sufficient

(SSC CGL Prelim Exam. 27.02.2000  
(Second Sitting))

- 3.** In the new budget, the price of kerosene oil rose by 25%. By how much per cent must a person reduce his consumption of kerosene oil so that his expenditure on it does not increase ?

(1) 20%                      (2) 25%

(3) 50%                      (4) 40%

(SSC CGL Prelim Exam. 24.02.2002  
(IInd Sitting) & (SSC CGL  
Exam. 13.11.2005 (IInd Sitting))

- 4.** If the price of tea is increased by 20%, by how much per cent the consumption of tea be reduced so that there is no increase in the expenditure on it ?

(1)  $83\frac{1}{3}\%$                       (2) 20%

(3)  $16\frac{2}{3}\%$                       (4)  $8\frac{1}{3}\%$

(SSC CPO S.I. Exam. 05.09.2004)

- 5.** If the price of a commodity is decreased by 20% and its consumption is increased by 20%, what will be the increase or decrease in the expenditure on the commodity ?

(1) 4% increase (2) 4% decrease

(3) 8% decrease (4) 8% increase

(SSC CPO S.I. Exam. 16.12.2007)

- 6.** The price of a certain item is increased by 15%. If a consumer wants to keep his expenditure on the item the same as before, how much per cent must he reduce

his consumption of that item ?

(1) 15%                      (2)  $13\frac{1}{23}\%$

(3)  $16\frac{2}{3}\%$                       (4)  $10\frac{20}{23}\%$

(SSC CGL Prelim Exam. 04.02.2007  
(First Sitting))

- 7.** If the price of a commodity is increased by 50%, by what fraction must its consumption be reduced so as to keep the same expenditure on its consumption ?

(1)  $\frac{1}{4}$                       (2)  $\frac{1}{3}$

(3)  $\frac{1}{2}$                       (4)  $\frac{2}{3}$

(SSC CGL Prelim Exam. 27.07.2008  
(First Sitting))

- 8.** If the price of rice be raised by 25%, the percent by which a house-holder must reduce his consumption of rice so as not to increase his expenditure on rice is

(1) 225%                      (2) 25.75%

(3) 25%                      (4) 20%

(SSC Multi-Tasking Staff  
Exam. 17.03.2013, 1st Sitting)

- 9.** If the duty on an article is reduced by 40% of its present rate, by how much per cent must its consumption increase in order that the revenue remains unaltered ?

(1) 60%                      (2)  $62\frac{1}{3}\%$

(3) 72%                      (4)  $66\frac{2}{3}\%$

(SSC CPO S.I. Exam. 09.11.2008)

- 10.** Price of milk has increased by 20%. To keep the expenditure unchanged, the present consumption is to be reduced by :

(1) 20%                      (2) 18%

(3) 10%                      (4)  $16\frac{2}{3}\%$

(SSC Multi-Tasking Staff  
Exam. 10.03.2013)

- 11.** The price of a commodity rises from ₹ 6 per kg to ₹ 7.50 per kg. If the expenditure cannot increase, the percentage of reduction in consumption is

(1) 15%                      (2) 20%

(3) 25%                      (4) 30%

(SSC CGL Tier-1 Exam 19.06.2011  
(Second Sitting))