

Percentage

Type I:- Basic Calculations and Comparisons

1) $35\frac{5}{7}\%$ of 6510 + $77\frac{7}{9}\%$ of 5886 = ? % of 6126 + 50% of 5638

- A) 49.5 B) 58.35 C) 54
D) 66.66 E) None

2) 36% of 250 + $\sqrt{3884} = x^2 - 209$

- A) 19 B) 14 C) 21 D) 12

3) 43% of 1400 – 36% of 250 – $18 \times 21 = x$

- A) 153 B) 161 C) 165 D) 167 E) 134

4) Ankita is 25 years old. If Rahul's age is 25% greater than that of Ankita then how much percent Ankita's age is less than Rahul's age?

- A) 40% B) 35% C) 10%
D) 20% E) None of these

5) Fourty-five percent of a number is 30 less than three-fifth of that number . What is the number?

- A) 100 B) 120 C) 130 D) 200

6) If the numerator of a fraction be increased by 15% and its denominator be diminished by 8%, the value of the fraction is $\frac{15}{16}$. Find the original fraction.

- A) $\frac{1}{2}$ B) $\frac{3}{2}$ C) $\frac{3}{4}$ D) $\frac{4}{3}$

7) 56% of a number is less than its 72% by 56. What is 70% of that number?

- A) 300 B) 235 C) 240 D) None of these

8) If 35% of a number is 175, what per cent of 175 is that number?

- A) 35% B) 65% C) 280%
D) 300% E) None of these

9) Water contains $14\frac{2}{7}\%$ of hydrogen and the rest is oxygen. In 350 g of water, oxygen will be

- A) 300g B) 250g C) 200g D) None of these

10) The income of 'A' is 20% higher than that of 'B'. The income of 'B' is 25% less than of 'C'. What percent less is A's income from C's income?

- A) 7% B) 8% C) 10% D) 12.5%

Type II-Income and Expenditure

1) From the salary, Akilesh spent 15% for house rent, 5% for children's education and 15% for Entertainment. Now he left with

Rs.13,000. His salary is

- A) 19,000 B) 20,000
C) 18,000 D) 15,000

2) Rakesh spent 30 percent of his monthly income on food items. Of the remaining amount he spent 60 percent on clothes and bills. Now he save five-seventh of the remaining amount and the he saves 120000 yearly, then find his monthly income.

- A) 40000 B) 50000 C) 60000
D) 70000 E) None of these

3) The income of a person is 10000 and its expenditure is 6000 and thus saves 4000rs. In the next year his income is increased by 10% and its expenditure increased by 20%. Now his saving is what percent lower than the previous saving.

- A) 5% B) 7.5% C) 10% D) 15%

4) Anushka spends 25% of her monthly income on household expenses. Her annual income is Rs. 4.32 lac. What is the total amount that Anushka spends on house hold expenses in 8 months together?

- A) Rs. 74000 B) Rs. 71000
C) Rs. 73000 D) Rs. 72000 E) None of these

5) Sohan spends 23% of an amount of money on an insurance policy. 33% on food, 19% on children's education and 16% on recreation. He deposits the remaining amount of Rs. 504 in bank. How much total amount does he spend on food and insurance policy together?

- A) Rs. 3200 B) Rs. 3126 C) Rs. 3136
D) Rs. 3048 E) None of these

6) Pradip spends 40 per cent of his monthly income on food items, and 50 per cent of the remaining on clothes and conveyance. He saves one-third of the remaining amount after spending on food, clothes and conveyance. If he saves ₹ 19,200 every year, what is his monthly income ?

- A) Rs. 24000 B) Rs. 12000 C) Rs. 16000
D) Rs. 20000 E) None of these

Type III – Election based questions

1) In an election between two candidates, the candidate getting 60% of the votes polled is elected by a majority of 14,000 votes. The number of votes obtained by the winning candidates is

- A) 40000 B) 44000 C) 42000
D) 48000 E) 50000

2) 12 percent of the voters in an election did not cast their votes. In this election there are only two candidates. The winner by obtaining 45% of the total votes and defeated his rival by 2000 votes. The total number of votes in the election

- A) 50000 B) 75000 C) 100000
D) 125000 E) None of these

3) In an election, 10% of the voters on the voter's list did not cast their votes and 60 voters cast their ballot papers blank. There were only two candidates. The winner was supported by 47% of all voters in the list and he got 308 votes more than his rival. The number of voters on the list were

- A) 6000 B) 6200 C) 4000
D) 6500 E) 7000

4) In a village, two contestants (A & B) are contesting in an election. 70% of the registered voters cast their votes in the election and A wins the election by 400 votes. If A had received 12.5% less votes, A's votes would have been

equal to B's votes. How many registered voters are there in the village?

- A)4500 B)4200 C)4000
D)4250 E)None of these

5) In an election the votes between the winner and loser candidate are in the ratio 5:1. If total number of eligible voters are 1000, out of which 12% did not cast their vote and among the remaining vote 10% declared invalid. What is the number of votes the winner candidate get ?

- A) 620 B) 630 C) 640 D)660

6) In an election survey, $83\frac{1}{3}\%$ of total voters took part in survey, 50% then claims to vote for candidate A, 10% are uncertain & rest says to vote for B. If all of them voted according to their commitments on the day of election and those who were not part of survey, voted to A and B in ratio of 2 : 1. All the people who are uncertain in survey, voted to A : B in the ratio of 1 : 4 in election. If A won by 640 votes, then find total number of votes in election.

- A) 6000 B) 5000 C) 9000 D) 7200 E) 6750

Type IV - Exam and Marks

1) In an examination it is required to get 290 of the aggregate marks to pass. A student gets 203 marks and is declared failed by 12% of total marks, what are the maximum aggregate marks a student can get?

- A)775 B)750 C)725 D)Can't be determined

2) To an examination, a candidate needs 40% marks. All questions carry equal marks. A candidate just passed by getting 10 marks answers correct by attempting 15 of the total questions. How many questions are there in the examination?

- A)25 B)30 C)40 D)45

3) A candidate who gets 20% marks fails by 10 marks but another candidate who gets 42% marks gets 12% more than the passing marks. Find the maximum marks.

- A)150 B)100 C)50 D)250 E)200

4) In a college Anjana scored 80 marks out of 150 in History and 95 marks out of 120 in English. If she wants to score 70% marks in 3 subjects, find the minimum marks she should score in Geography out of 100.

- A)70 B)55 C)76 D)85 E)None of these

5) A got 30% of the maximum marks in an examination and failed by 10 marks. However, B who took the same examination got 40% of the total marks and got 15 marks more than the passing marks. What were the passing marks in the examination?

- A) 65 B) 75 C) 80 D) 90 E) None of these

Type V – Chain Rule

1) In an examination A got 25% marks more than B, B got 10% less than C and C got 25% more than D. If D got 320 marks out of 500, the marks obtained by A were

- A)405 B)450 C)360 D)400

2) In an examination , full mark is 500, A gets 25% more than B, B gets 40% more than C and C gets 60% more

than D.If A got 320 ,what percentage of full marks did D got (approx.)?

- A)21 B)22 C)23 D)24

3) Monthly salary of A is 30% more than B's monthly salary and B's monthly salary is 20% less than C's. If the difference between the monthly salaries of A and C is Rs 800, then find the annual salary of B.

- A) Rs 14,500 B) Rs 16,800 C) Rs 15,000

- D) Rs 16,000 E) None of these

Type VI – Percentage Change/population

1) The price of an article is first increased by 20% and later on it is decreased by 25% due to reduction in sales. Find the net percentage change in final price of the article.

- A)20% B)18% C)38% D)10% E)None of these

2) Rishi salary is first increased by 20% and then decreased by 25%. How much percent the salary increased/decreased?

- A) 5% B) 10% C) 15% D)20%

3) The price of a fan is decreased by 20%.as a result of which the sale increased by 40%.What will be the effect on the total revenue of the shop?

- A)12% B)10% C)20% D)30%

4) The length of a rectangular plot is increased by 50%, to keep its area unchanged, the width of the plot should be decreased by _____?

- A) 29.87% B) 33.33% C) 22.22% D) 19.5%

5) The population of a village is decreased by 12% and 10% in 2 successive years. What % population is decreased after 2 years ?

- A)18.4% B)30.6%
C)20.8% D)23.5%

6) The population of a village is decreased by 12% and 10% in 2 successive years. What % population is decreased after 2 years ?

- A)18.4% B)30.6% C)20.8 D)23.5%

7) The population of a town is 15000. It increases by 10 percent in the first year and 20 percent in the second year. But in the third year it decreases by 10 percent. What will be the population after 3 years.

- A) 16820 B) 15820 C) 17820
D) 19820 E) None of these

8) 3 years ago the population of a town was 1, 60,000. In the three respective years the population increased by 3%, 2.5% and 5% respectively. What is the population of town after 3 years?

- A) 1,77,366 B) 1,66,733 C) 1,76,736
D) 1,80,766 E) 1,69,766

Type VII – Consumption

1) The price of rice is increased by 15%. The percentage of reduction that a family should effect in that use of rice, so as not to increase the expenditure is

- A)13% B)10% C)15% D)17%

2) If the price of a commodity is increased by 30%, by how much % a consumer must reduce his consumption so to keep the expenditure same ?

- A) 100/13 B) 200/13 C) 300/13
D) 400/13

3) If the price of sugar rises from Rs. 6 per kg to Rs. 7.50 per kg, a person, to have no increase in his expenditure on sugar, will have to reduce his consumption of sugar by

- A) 15 B) 20 C) 25 D) 30

4) When the price of rice is increased by 25 percent, a family reduces its consumption such that the expenditure is only 10 percent more than before. If 40 kg of rice is consumed by family before, then find the new consumption of family.

- A)32.2 B)35.2 C)36.2
D)37.2 E)None of these

5) When the price of rice is increased by 30 percent, a family reduces its consumption such that the expenditure is only 20 percent more than before. If 50 kg of rice is consumed by family before, then find the new consumption of family (approx.)

- A) 43kg B) 44kg C) 45kg
D) 46kg E) None of these

Type VIII- Overlapping Sets

1) In a class of 60 students , 40% of the students passed in Reasoning, 5% of the students failed in Quants and Reasoning, and 20% of the students passed in both the subjects. Find the number of student passed only in Quants? A)17 B)33 C)23 D)37 E)None of these

2) In an examination 70% candidates passed in prelims and 55% candidates passed in Mains. If 62% candidates passed in both these subjects, then what per cent of candidates failed in both the exams?

- A)37% B)26% C)43% D)15% E)None of these

3) There are 2500 students who appeared for an examination. Out of these, 35% students failed in 1 subject and 42% in other subject and 15% of students failed in both the subjects. How many of the students passed in either of the 2 subjects but not in both?

- A) 1925 B) 1175 C) 1275
D) 1100 E) 1800

Type IX – Solution/Mixture Based Questions

1) 30 litre of solution contains alcohol and water in the ratio 2:3. How much alcohol must be added to the solution to make a solution containing 60% of alcohol?

- A) 10 B) 12 C) 14 D) 15 E) None of these

2) A solution contains 10% of salt by weight. On evaporation 15 litre of water evaporates and now concentration of salt becomes 20 percent. Find the initial quantity of solution

- A) 20ltr B) 30ltr C) 40ltr D) 50ltr E) None of these

3) In some quantity of ghee, 60% is pure ghee and 40% is Vanaspati. If 10 kg of pure ghee is added, then the

strength of Vanaspati ghee becomes 20%. The original quantity was :

- A) 10 kg B) 15 kg C) 20 kg D) 25 kg

4) In 30 litres of milk and water, water is only 20%. How many litres of water should be added to it to increase the percentage of water to 60% ?

- A)24 litres B)6 litres C)20 litres
D)30 ;litres E)None of these

5) A jar can 20 litre milk. From the jar, 4 litres milk was taken out and replaced with an equal quantity of water. If 4 litres of the newly formed mixture is taken out of the can, then what is the final quantity of milk left in the can?

- A) 14.5 lit B) 12.8 lit
C) 11.6 lit D) 10.46 lit

Type X- Miscellaneous

1) A bag contains 600 coins of 25 p denomination and 1200 coins of 50 p denomination. If 12% of 25 p coins and 24% of 50 p coins are removed, the percentage of money removed from the bag is nearly:

- A) 21.6 % B) 15.3 % C) 14.6 % D) 12.5 %

2) Of the 1000 inhabitants of a town, 60 % are males of whom 120 % are literate. If, of all the inhabitants, 25% are literate, then what percent of the females of the town are literate ?

- A) 32.5 % B) 43% C) 46.6% D)53.2 %

3) In a City, 35% of the population is composed of migrants, 20% of whom are from rural areas. Of the local population, 48% is female while this figure for rural and urban migrants is 30% and 40% respectively. If the total population of the city is 728400, what is its female population?

- A) 324138 B) 349680
C) 509940 D) None of these

4) A number X is mistakenly divided by 10 instead of being multiplied by 10. What is the percentage error in the result?

- A) -99% B) +99% C) -100% D) +100%

5) A student multiplied a number by $\frac{2}{5}$ instead of $\frac{5}{2}$. What is the percentage error in evaluation?

- A) 52% B) 64% C) 84% D) 77%

6) A Shopkeeper charges sales tax of x% upto Rs.2, 000 and above it he charges y%. A customer pays total tax of Rs 320, when he purchases the goods worth Rs. 6,000 and he pay's the total tax of Rs. 680 for the goods worth Rs. 12,000. The value of (x-y) is:

- A) 0 B) -2 C) -4 D) 5

7) A reduction of 20% percent in the price of rice enables a housewife to buy 5 kg more for rupees 1200. The reduced price per kg of rice

- A) 36 B) 45 C) 48 D) 60 E) None of these

8) If price of rice increased by 25%, so that a man is can able to purchase 5 kg less rice in Rs. 500. Find the original price of rice per kg ?

- A) Rs. 20 B) Rs. 24 C) Rs. 26 D) Rs. 29

9) Veena bought a watch costing Rs. 1404 including sales tax at 8%. She asked the shopkeeper to reduce the price of the watch so that she can save the amount equal to the tax. The reduction of the price of the watch is?

- A) Rs.108 B) Rs.104
C) Rs.112 D) Rs.120 E) None of these

10) 500 kg of ore contained a certain amount of iron. After the first blast furnace process, 200 kg of slag containing 12.5% of iron was removed. The percentage of iron in the remaining ore was found to be 20% more than the percentage in the original ore. How many kg of iron were there in the original 500 kg ore?

- A) 54.2 B) 58.5 C) 46.3
D) 42.4 E) 89.2

11) Fresh fruits contain 75% while dry fruits contain 20% water. If the weight of dry fruits is 300 kg, what was its total weight when it was fresh?

- A) 900kg B) 850kg C) 920kg
D) 960kg E) None of these

12) Deepak was to get a 50% hike in his pay but the computer operator wrongly typed the figure as 80% and printed the new pay slip. He received this revised salary for three months before the organization realized the mistake. What percentage of his correct new salary will get in the fourth month, if the excess paid to him in the previous three months is to be deducted from his fourth month?

- A) 30% B) 40% C) 45% D) 25%

13) Prerna decided to donate 15% of her salary to an orphanage. On the day of donation she changed her mind and donated Rs 2,896 which was 90% of what she had decided earlier. How much is Prerna's salary (approx.)?

- A) Rs. 19500 B) Rs. 17250 C) Rs. 21450
D) Can't be determined E) none of these

14) A person had a certain amount. He invested $\frac{5}{6}$ th of it in shares, 5% of it in mutual funds, and 10% of it in debentures and kept the remaining Rs. 850 with him. If got interest at 10% for a year on debentures, what amount did he get as interest?

- A) Rs. 5100 B) Rs. 7650 C) Rs. 510
D) Rs. 765 E) None of these

15) Each question contains Quantity I and Quantity II. Read the contents clearly and answer your questions accordingly.

Quantity I: if the length of a rectangle is increased by 20% while the breadth of the rectangle is decreased by 10% then find percentage change in area of the rectangle?

Quantity II: if the side of a triangle is increased by 30% while the height of a triangle is decreased by 20% then find the percentage change in area of the triangle?

- A) Quantity I > Quantity II B) Quantity I \geq Quantity II
C) Quantity I < Quantity II D) Quantity I < Quantity II

Answers

Type I		Type II	Type III	Type IV	Type V	Type VI	Type VII	Type VIII	Type IX	Type X	
1)D	6)C	1)B	1)C	1)C	1)B	1)D	1)A	1)B	1)D	1)A	9)B
2)A	7)D	2)B	2)C	2)A	2)C	2)B	2)C	2)A	2)B	2)A	10)E
3)E	8)E	3)A	3)B	3)B	3)E	3)A	3)B	3)B	3)A	3)A	11)D
4)D	9)A	4)D	4)C	4)E		4)B	4)B		4)D	4)A	12)B
5)D	10)C	5)C	5)D	5)E		5)C	5)D		5)B	5)C	13)C
		6)C	6)D			6)C				6)B	14)C
						7)C				7)C	15)A
						8)A				8)A	