

***APTITUDE MASTERY SERIES***

**MODULE 4 – PERCENTAGE**

- In XYZ College, 65% of students are less than 20 years of age. The number of students more than 20 years of age is  $\frac{2}{3}$ <sup>rd</sup> of number of students of 20 years of age which is 42. What is the total number of students in the College?  
(a) 75            (b) 90            (c) 130            (d) 200
- A student attempts  $x$  number of questions. He answers 15 correctly out of first 20 questions and of the remaining questions, he answers  $\frac{1}{3}$  correctly. If all questions have same credit and the student gets 50 % marks, then find the value of  $x$ ?  
(a) 35            (b) 40            (c) 50            (d) 55
- Radha's salary is 50% more than Seeta's salary. Radha got a raise of 40% on her salary while Seeta got a raise of 30% on her salary. By what percent is Radha's salary more than Seeta's?  
(a) 61.53%            (b) 71.64%  
(c) 86.47%            (d) 56.92%
- A number is mistakenly divided by 2 instead of being multiplied by 2. Find the percentage change in the result?  
(a) 35%            (b) 45%            (c) 65%            (d) 75%
- Two students appeared in an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:  
(a) 39, 30            (b) 42, 33  
(c) 41, 32            (d) 43, 34
- A reduction in the price of apples enables a person to purchase 3 apples for Re 1 instead of Rs. 1.25. What is the % of reduction in price (approximately)?  
(a) 20%            (b) 25%            (c) 30%            (d)  $33\frac{1}{3}\%$
- 5% of A's income is equal to 15% of B's income and 10% of B's income is equal to 20% of C's income. If income of C is Rs. 2000, then the total income of A, B and C is:  
(a) Rs.6000            (b) Rs.18,000  
(c) Rs.14,000            (d) Rs.20,000
- The price of a car is Rs. 5,00,000. It was insured for 90% of its price. The car got completely damaged and the insurance company paid only 80% of the insured amount. What is the price of the difference between the price of the car and the amount of insurance received?  
(a) 1,28,000            (b) 1,64,000  
(c) 1,60,000            (d) 1,40,000
- In a college election between 2 students, 10% of the votes cast is invalid. The winner gets 70% of the valid votes and defeats the loser by 1800 votes. How many votes were cast in total?  
(a) 4300            (b) 5000  
(c) 5400            (d) 6600
- The prices of two articles are in the ratio 3: 4. If the price of the first article be increased by 10% and that of the second by Rs. 4, the original ratio remains the same. The original price of the second article is:  
(a) Rs.40            (b) Rs.35  
(c) Rs.10            (d) Rs.30
- A vendor sells 50 percent of apples he had and throws away 20 percent of the remainder. Next day he sells 60 percent of the remainder and throws away the rest. What percent of his apples does the vendor throw?  
(a) 20%            (b) 22%  
(c) 24%            (d) 26%

12. A company produced 900 pieces of transistors out of which 15% were defective and out of the remaining, 20 % were not sold. Find out the number of transistors sold.  
(a) 610 (b) 611 (c) 612 (d) 614
13. A, B and C participated in a burger eating competition. A beat C by 18 burgers. A also beat B by eating 50% more burgers than B. B had eaten 5 percentage points more burgers than C. Find the overall number of burgers that were eaten?  
(a) 90 (b) 81 (c) 72 (d) 100
14. Traders A and B buy two goods for Rs. 1000 and Rs. 2000 respectively. Trader A marks his goods up by  $x\%$ , while trader B marks his goods up by  $2x\%$  and offers a discount of  $x\%$ . If both make the same non-zero profit, find  $x$ ?  
(a) 12.5% (b) 25% (c) 37.5% (d) 40%
15. In an examination, 35% of students failed in quants and 42% of students failed in verbal while 14% failed in both the topics. If 222 students passed in both the topics, how many students appeared to write the examination?  
(a) 500 (b) 600 (c) 700 (d) 800
18. The population of a town increased from 1,75,000 to 2,62,500 in a decade. The average percent increase of population per year is:  
(a) 4.37% (b) 5%  
(c) 6% (d) 8.75%
19. Two numbers A and B are such that the sum of 5% of A and 4% of B is two-third of the sum of 6% of A and 8% of B. Find the ratio of A : B.  
(a) 2 : 1 (b) 1 : 2  
(c) 1 : 1 (d) 4 : 3
20. At the end of year 1998, a shepherd bought nine dozen goats. Henceforth, every year he added  $p\%$  of the goats at the beginning of the year and sold  $q\%$  of the goats at the end of the year where  $p > 0$  and  $q > 0$ . If the shepherd had nine dozen goats at the end of year 2002, after making the sales for that year, which of the following is true?  
(a)  $p = q$  (b)  $p < q$   
(c)  $p > q$  (d)  $p = q/2$

## HOME WORK

16. In a local election, 2400 people were to vote for Party A or Party B. Party A was bound to win the election. However, on Election Day, 33% of the voters of Party A were kidnapped. Party B was also able to influence the remaining Party A voters and thus double the strength of its voters. In this way, Party A lost by a majority which was half of that by which it would have won had the elections been fair. How many people finally voted for Party A and Party B?  
(a) 600(A), 1200(B) (b) 300(A), 600(B)  
(c) 450(A), 900(B) (d) 600(A), 900(B)
17. In a group of 80 children and 10 youngsters, each child got sweets that are 15% of the total number of children and each youngster got sweets that are 25% of the total number of children. How many sweets were there?  
(a) 1160 (b) 1100 (c) 1080 (d) 1210