**Most Important Question**

**By Vikas Sir**

**Average**

Q1. The average of the marks obtained in an examination by 8 students was 51 and by 9 other students was 68. Find the average marks of all 17 students?

1. 59 b) 59.5 **c) 60** d) 60.5

Q2. If the average marks of three batches of 55, 60 and 45 students respectively 50, 55 and60, then the average marks of all the students is

1. **54.68** b) 53.33 c) 55 d) 56

**Q3.** The average of 10 numbers is 7.If each number is multiplied by12, then the average of the new set of numbers will be

1. 7 b) 19 c) 82 **d) 84**

Q4. The average weight of five persons sitting in a boat is 38 kg. The average weight of the boat and the persons sitting in the boat is 52kg. What is the weight of the boat?

a) 228 kg **b) 122 kg** c) 232 kg d) 242 kg

Q5. A library has an average number of 510 visitors on Sunday and 240 on other days. The average number of visitors per day in a month of 30 days beginning with Sunday is

1. **285** b) 295 c) 300 d) 290

**Q6.** The average monthly expenditure of a family is 2,200 during first three months, 2,550 during next four months and 3,120 during last five months of the year. If the total savings during the year was 1,260, what is the average monthly income?

1. 1,260 b) 1,280 **c) 2,805** d) 2,850

Q7. The average of 15 numbers is 7. If the average of the first 8 numbers be 6.5 and the average of last 8 numbers be 9.5, then the middle number is

1. 20 b) 21 **c) 23** d) 18

Q8. The average of marks of 17 students in an examination was calculated as 71. But it was later found that the mark of one student had been wrongly entered as 65 instead of 56 and another as 24 instead of 50. The correct average is

1. 70 b) 71 **c) 72** d) 73

Q9. The present average age of a family of 5 members is 40 years. If the youngest member of the family is 12 years old, then find the average age of the family at the time of birth of the youngest member.

1. 32 b) 33 c) 34 **d) 35**

Q10. The average weight of 12 people gets increased by 3.5kg when a person weighs 56 kg got replaced by another man. Find the weight of the new man

1. 90kg b) 92kg c) 96kg **d) 98kg**

Q11. The average daily income of 7men, 11 women and 2 boys is Rs. 257.50. If the average daily income of the men is Rs.10 more than that of women and the average daily income of the women is Rs.10 more than that of boys, the average daily income of a man is

1. Rs. 277.5 b) Rs. 250 **c) Rs. 265** d) Rs. 257

Q12. The average age of 12 players of a team is 25 years. If the captain’s age is included, the average age increases by 1 year. The age of the captain is

1. 25 yrs. **b) 38 yrs**. c) 36 yrs. d) 26 yrs.

Q13. The average age of Ram and his two children is 17 years and the average age of Ram’s wife and the same children is 16 years. If the age of Ram is 33 years, the age of his wife is (in years)

1. 31 b) 32 c) 35 **d) 30**

Q14. Average age of 8 men is increased by 3 years when two of them whose age are 30 and 34 years are replaced by 2 persons. What is the average age of the 2 persons?

1. 24 years b) 32 years **c) 44 years** d) 48 years e) 42 years

Q15. The average age of 11 players of a cricket team is increased by 2 months when two of them aged 18 years and 20 years are replaced by two new players. The average age of the new players is

1. 19 years 1 month b) 19 years 6 months **c) 19 years 11 months** d) 19 years 5 months

Q16. Out of 10 teachers of a school, one teacher retires and at his place a new teacher of age 25 years joins. As a result of it, the average age of the teachers is reduced by 3 years. The age of the retired teacher is

1. 60 years b) 58 years c) 56 years **d) 55 years**

Q17. The average of five numbers is 140. If one number is excluded, the average of the remaining four numbers is 130. The excluded number is

1. 135 b) 134 **c) 180** d) 150

Q18. There were 35 students in a hostel. If the number of students is increased by 7 the expenditure on food increases by 42 per day while the average expenditure of students is reduced by 1. What was the initial expenditure on food per day?

1. 400 b) 432 c) 442 **d) 420**

Q19. A cricketer has a certain average of runs for his 8 innings. In the ninth innings, he scores 100runs, thereby increases his average by 9 runs. His new average of runs is

1. 20 b) 24 **c) 28** d) 32

Q20. In an exam, the average marks obtained by the students were found to be 60. After omission of computational errors, the average marks of 100 candidates had to be changed from 60 to 30 and the average with respect to all the examinees came down to 45marks. The total number of candidates who took the exam, was

1. **200** b) 210 c) 240 d) 180

**Q21.** A cricketer whose bowling average is 12.4 runs per wicket, takes5 wickets for 26 runs and there by decreases his average by 0.4. The number of wickets taken by him till the last match was

1. 64 b) 72 c) 80 **d) 85**

Q22. In Arun’s opinion, his weight is greater than 65 kg but less than 72 kg. His brother does not agree with Arun and he thinks that Arun’s weight is greater than 60 kg but less than 70 kg. His mother’s view is that his weight cannot be greater than 68 kg. If all of them are correct in their estimation, what is the average of different probable weights of Arun?

1. 55.5 kg b) 66.5 kg c) 77.5 kg d) 67 Kg

Q23. Three math classes: X, Y, and Z, take an algebra test. The average score in class X is 83. The average score in class Y is 76. The average score in class Z is 85. The average score of all students in classes X and Y together is 79. The average score of all students in classes Y and Z together is 81. What is the average score for all the three classes, taken together?

1. 81 **b) 81.5** c) 82 d) 84.5

Q24. A person was asked to state his age in years. His reply was, “Take my age three years hence, multiply it by 3 and then subtract three times my age three years ago and you will know how old I am.” What was the age of the person?

1. **18 years** b) 20 years c) 24 years d) 32 years

**Q25.** When the couple was married the average of their ages was 25 years. When their first child was born, the average age of family became 18 years. When their second child was born, the average age of the family became 15 years. Find the average age of the couple now?

1. 31 b) 27 c) 28 **d) 29**

Q26. Find the average of First 100 odd number

1. **100** b) 101 c) 99 d) None

**Q27.** Find the average of First 100 even number

1. 100 **b) 101** c) 99 d) None

Q28. Find the average of first 60 natural Number.

1. 30 **b) 31.5** c) 32 d) None

Q29. Find the average of Squares of first 5 natural numbers

1. 10 **b) 11** c) 9 d) None

Q30. Find the average of first 20 number which are divisible by 8

1. 80 **b) 84** c) 88 d) 92

**Percentage**

Q31. The price of a book is first increased by 10% and then decreased by 5%, then the net change in the price will be

1. 4.2% increase B) 4.5% increase C) 4.2% decrease **D) 4.5% decrease**

Q32. If the numerator of certain fraction increased by 100% and the denominator is increased by 200% the new fraction thus formed is 4/21. What is the original fraction?

1. **2/7** B) 3/7 C) 2/5 D) 4/7

Q33. One-eighth of a number is 17.25. What will 73% of the number be?

1. **100.74** B) 138.00 C) 96.42 D) 82.66

**Q34.** Mr Shamin’s salary increase every year by 10% in june. If there is no other increase or reduction in the salary and his salary in June 2011 was rs22,385, what was his salary in June 2009?

1. rs 18,650 **B) rs 18,000** C) rs 19,250 D) rs 18,500

Q35. In order to pass in an exam a student is required to get 780 marks out of the aggregate marks. Sonu got 728 marks and was declared failed by 5 per cent. What are the maximum aggregate marks a student can get in the examination?

1. **1040** B) 11001 C) 1000 D) Cannot be determined

**Q36.** If two numbers are respectively 20% and 50% of a third number, what is the percentage of the first number to the second?

1. 10 B) 20 C) 30 **D) 40**

Q37. An inspector rejects 0.08% of the meters as defective. How many metres will he examine to reject 2 metres?

1. 200m B) 250m **C) 2500m** D) 3000m

Q38. If 40% of a certain number is 120, then what is 90% of that number?

1. 150 B) 200 C) 240 **D) 270**

Q39. The population of a town is 10000. It increases annually at the rate of 20% p.a. What will be its population after 2 years?

1. **14440** B) 12400 C) 14400` D) 11400

**Q40.** What percent is 5 gm of 1 kg?

1. 0.05% **B) 0.5%** C) 0.005% D) 5%

Q41. Fourty-five percent of a number is 30 less than three-fifth of that number. What is the number?

1. 100 **B) 120** C) 130 D) 200

Q42. 40% of 60% of 3/5 of 2750 = ?

1. 372 B) 384 **C) 396** D) 412

Q43. The number that is to be added to 10% of 320 to have the sum as 30% of 230 is

1. **37** B) 32 C) 23 D) 73

**Q44.** If the difference between 85% and 48% of a number is 314.5, then what is 36% of that number

1. 302 **B) 306** C) 312 D) 318

Q45. The total number of girls in a class is 45% more than the total number of boys in the class. The total number of students in the class is 294 then what is the difference between the total number of girls and boys?

1. **54** B) 52 C) 76 D) 78

**Q46.** If the radius of the circle is increased by 5% then the area is increased by

A) 10.20 B) 10.22 C) 10.24 **D) 10.25**

Q47. In an examination, 30% of the maximum marks required to pass. A student gets 120marks and failed by 90marks. Find the maximum marks

1. 800 B) 720 C) 650 **D) 700**

Q48. From the salary, Akilesh spent 15% for houserent, 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

Q49. The percentage discount offered for "Buy 6 get 1 free is"?

1. 85.78 % B) 58. 48 % C) 19.25 % **D) 14.285 %**

Q50. In a Bookshelf 60% of the books are in Tamil, 60% of the remaining books are in English rest of the books are in Hindi. If there are 2400 books in English, then the total number of books in Hindi are?

1. 1300 B) 1250 **C) 1600** D) 1450

Q51. A epidemic broke out in a village in which 5% of the population died. Of the remaining, 20% fled out of panic. If the present population is 4655, then the population of the village originally was

1. 6000 **B) 6125** C) 5995 D) 5855

Q52. 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

1. 405 **B) 450** C) 360 D) 400

Q53. The population of a town is 126800. It increases by 15% in the first year and decreases by 20% in the second year. What is the population of the town at the end of 2 year?

1. 174984 B) 135996 **C) 116656** D) 145820

Q54. What percentage of the whole week does Pirkandu spend in office, if his office hours are 9 am to 5 pm from Monday to Friday?

1. **23.8%** B) 28% C) 20.5% D) 25.8%

**Q55.** In an examination, 50% of the students passed in Science and 75% passed in Social, while 20% students failed in both the subjects. If 270 students passed in both subjects, find the total number of students who appeared in the exam?

1. 1400 B) 2540 **C) 3600** D) 4750

Q56. A house-owner was having his house painted. He was advised that he would require 25 kg of paint. Allowing for 15% wastage and assuming that the paint is available in 2 kg cans, what would be the cost of paint purchased, if one can costs Rs. 16?

1. **240 Rs**. B) 180 Rs. C) 160 Rs. D) 280 Rs.

**Q57.** When the price of sugar was increased by 20%, a family reduced its consumption in such a way that the expenditure on sugar is only increased by 15%. If 24 kg were consumed per month before the increase in price, find the new monthly consumption.

1. 21 kg **B) 23 kg** C) 20 kg D) 19 kg

Q58. Population of city B is 20% more than city A. If 40% and 66𝟐/𝟑% of population of city A and city B respectively is literate and the difference between the number of illiterate people of the cities is 600 then find the total population of city A ?

1. 3300 **B) 3000** C) 6600 D) 3600

Q59. Nandita scored 80 per cent marks in five subjects together viz, Hindi, Science, Maths, English and Sanskrit together wherein the maximum marks of each subject were 105. How many marks did Nandita score in Science if she scored 89 marks in Hindi, 92 marks in Sanskrit, 98 marks in Maths and 81 marks in English?

1. **60** B) 75 C) 65 D) 70

**Q60.** A’s salary is 20% less than B’s salary. B’s saving is 50% more than A’s saving. If ‘B’ spends 40% of his salary and average of A’s salary and B’s saving is Rs. 10,500, then find the expenditure of A?

1. Rs. 6,000 B) Rs. 7,500 **C) Rs. 9,000** D) Rs. 10,500

**Profit and Loss**

Q61. Varun sold an item for 6,384 and incurred a loss of 30%. At what price should he have sold the item to have gained a profit of 30%?

1. 14,656 **b) 11,856** c) 13,544 d) Cannot be determined

Q.62. A TV when sold for 7038 earned a profit of 15%. What was its cost price tv?

1. 6040 b) 6080 **c) 6120** d) 6240

Q63. Meera sold 8 keys and makes a profit equal to the selling price of 2 keys, what is the profit percentage?

1. **33 1/3%** b) 35 1/3% c) 33% d) 35%

**Q64.** If the selling price of 25 pens is equal to the cost price of 35 pens, then the profit percentage is:a.

1. 10 **b) 40** c) 15 d) 21

Q65. A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain 20%?

1. 3 b) 4 **c) 5** d) 6

Q66. Even after reducing the marked price of a fan by Rs64, a shopkeeper makes a profit of 15%. If the cost price of fan is Rs640 what percent of profit would have been made if he had sold the fan at the market price?

1. 20% **b) 25%** c) 30% d) 40%

Q67. An article is sold at 33(1/3)% profit. If it had been sold at a profit of 40%,it would have fetched Rs50 more. Find cost price of article?

1. 700 **b) 750** c) 600 d) 650

Q68. An article costing Rs. 363 is marked to be sold at a price which gives a profit of 20%. What will be its selling price in a sale when 15% is taken off the marked price?

1. Rs. 390.56 b) Rs. 390.26 c) Rs. 382.26 **d) None of these**

**Q69.** A man purchased 8 Electronic items at Rs.1000 per item. He spent Rs.5000 on repair and Rs.1000 on transportation of these items. What should be the selling price of each item if he wants to make 255 as profit?

a) 2600 b) 2550 c) 2570 **d) None**

Q70. If a shopkeeper sell a TV at 15% profit and a DVD at 12% loss then he earns Rs. 540 as total profit but if he sells the TV at 12% loss and the DVD at 15% profit then there is no loss or profit. Find the price of the TV and the DVD ?

a) Rs.11,000 and Rs. 2000 b) Rs.15,000 and Rs. 3000 c) Rs.11,000 and Rs. 6000

**d) Rs.10,000 and Rs.8000**

Q71. Anil bought some articles at 6 for Rs. 8 and sold them at 10 for Rs. 12. His percentage loss or gain is

1. 8% gain **b) 10% loss** c) 8% loss d) 10% loss

Q72. Raj Kumar sold 2 calculators for Rs. 990 each. On one calculator he gained 10% and on the other he lost 10%. Find his gain or loss in the transaction.

1. No loss-no gain 2. 1% gain **3. 1% loss** 4. 5% loss

Q74. A man marked his goods 20% above the cost price. While selling, he uses a false weight of 800gm instead of 1 kg and sells his goods at MP. Find the profit % he made by selling his goods?

1. 30% 2. 45% 3. 40% **4. 50%**

**Q75.** A false shopkeeper promises to sell his product on cost price but weighs 20% less. How much profit% does he earn?

1. 10% 2. 20% **3. 25%** 4. 30%

Q76. A television set was purchased for Rs. 650, and another Rs. 50 were spent on its transportation. At what price should it be sold so that the profit earned would be 20%?

1. **Rs. 840** 2. Rs. 7803. Rs. 870 4. Rs. 810

**Q77.** A shopkeeper cheats to the extent of 10% while buying and selling fruits, by using tampered weights. His total gain, in percentage, is

1. 21.05% 2. 24.24% **3. 22.22%** 4. 23.23%

Q78. A sells an item at 20% profit to B, B sells the same at 10% profit to C and receives Rs. 1,32,000.0. Had C purchased the same item from A, he would have spent 5% less than what he spent with B. What profit would A have made then?

1. Rs. 24,540 **2. Rs. 25,400** 3. Rs. 25,540 4. Rs. 24,450

Q79. A man sold two chairs for Rs 240 each, on one he gained 20% profit and another gained 20% loss. Find the total profit or loss percentage.

1. 0% loss 2. 40% profit **3. 4% loss** 4. 4% profit

Q80. A shopkeeper offers 40% discount on mark price and still makes 20% profit. Then find out his profit percent if he offers no discount.

1. 75% 2. 80% **3. 100%** 4. 60%

Q81. A man sells an article at a certain price incurring 20% loss. If he had sold the same article for Rs. 20 more he would have earned 20% profit. What was the cost price of the said article?

1. 20 2. 40 **3. 50** 4. 60

Q82. When five articles are sold at the rate of Re 1, there is a loss of 25%. How many articles should be sold for Re 1 to get a profit of 25%?

1. **3** 2. 2 3. 5 4. 1

**Q83.** A person makes a profit of 20% after giving 20% discount on the marked price of an article. The marked price is what percent above the cost price of the article?

1. 45 **2. 50** 3. 40 4. 60

Q84. On selling 17 balls at Rs. 720, there is a loss equal to the cost price of 5 ball. The cost price of a ball is –

1. Rs. 45 2. Rs. 50 3. Rs. 55 **4. Rs. 60**

**Q85.** Find the single equivalent discount which is equal to the successive discounts of 10%, 20% and 25%.

**1. 46%** 2. 54% 3. 55% 4. 45%

Q86. A trader buys some chocolates at 10 for Rs. 5 and sold them at 5 for Rs. 10. Find his gain or loss per-cent.

1. 150% **2. 300%** 3. 100% 4. 250%

Q87. The cost price of 45 items is equal to the selling price of 40 items. Find the loss or gain percentage.

1. 12.5% loss 2. 14.28% loss **3. 12.5% gain** 4. 14.28% gain

Q88. A shopkeeper who sells rice at Rs. 40/kg uses a faulty weights. Instead of 1 kg, his weights were only 850 grams. If the cost price of rice is Rs. 32/kg, calculate his overall profit percent (approx).

1. 42% 2. 39% 3. 45% **4. 47%**

**Q89.** A person sold a cycle for Rs. 935 with a gain of 10% then at how much amount did he purchase the cycle?

1. Rs. 945 **2. Rs. 850** 3. Rs. 925 4. Rs. 1,085

Q90. The marked price of an article at 640. A trader earned profit of 20% when he sell it at the discount of 40% on its marked price. The cost price of article is.

1. Rs. 360 **2. Rs. 320** 3. Rs. 330 4. Rs. 330