AVERAGE

Q.1 The average age of four boys, five years ago was 9 years. On including a new boy, the present average age of all the five is 15 years. The present age of the new boy is

(a) 14 years   (b) 6 years   (c) 15 years   (d) 19 years

Q.2 If the average of 39, 48, 51, 63, 75, 83, x and 69 is 60, then the value of x is

(a) 52   (b) 53   (c) 50   (d) 51

Q.3 A batsman makes a score of 58 runs in the 15th innings and thus increases his average by 3 runs. What is the average after 15th inning?

 (a) 12   (b) 14   (c) 16   (d) 18

Q.4 The average of 5 consecutive numbers is n. If the next two numbers are also included, the average of the 7 number will

(a) Increase by 2   (b) Increase by 1

(c) Remain the same   (d) Increase by 1.4

 Q.5 5 members of a team are weighted consecutively and their average weight calculated after each member is weighed. If the average weight increases by one Kg each time, how much heavier is the last player than the first one?

 (a) 8 kg   (b) 5 kg   (c) 4 kg   (d) 20 kg

Q.6 In a school with 600 students, the average age of the boys is 12 years and that of the girls is 11 years. If the average age of the school is 11 years and 9 months, then the number of girls in the school is

(a) 250   (b) 350   (c) 450   (d) 150

Q.7 In a family of 5 members, the average age at present is 33 years. The youngest member is 9 years old. The average age of the family just before the birth of the youngest member was

(a) 24 years   (b) 30 years   (c) 29 years   (d) 25 years

Q.8 In a club, the average age of the members is 30 years, the average age of male members is 34 years and that of the female members is 26 years. The percentage of the male members is

(a) 50%   (b) 60%   (c) 30%   (d) 40%

Q.9 The average age of 14 girls and their teacher's age is 15 years. If the teacher's age is excluded, the average reduces by 1. What is the teacher's age?

(a) 32 years   (b) 30 years   (c) 29 years   (d) 35 years

Q.10 If out of 10 selected students for an examination, 3 were of 20 years, age, 4 of 21 and 3 of 22 years, the average age of the group is

(a) 22 years   (b) 21 years   (c) 21.5 years   (d) 20 years

Q.11 The average weight of nine mangoes increases by 20 g if one of them weighing 120 g is replaced by another. The weight of the new mango is

(a) 180 g   (b) 200 g   (c) 260 g   (d) 300 g

Q.12 The average of 6 persons in a committee is increased by 2 years, when two men aged 55 years and 60 years are substituted by two women. The average age of these two women is

(a) 127 years   (b) 103 years   (c) 63.5 years   (d) 51.5 years

Q.13 A man had 7 children. When their average age was 12 years, a child aged 6 years died. The average age of remaining six children is

(a) 13 years   (b) 10 years   (c) 11 years   (d) 14 years

Q.14 The average marks obtained by 22 candidates in an examination are 45. The average marks of the first 10 candidates are 55 and those of the last eleven are 40. The number of marks obtained by the eleventh candidate is

(a) 45   (b) 0   (c) 50   (d) 47.5

Q.15 The average marks obtained by 40 students of a class is 86. If the 5 highest marks are removed, the average reduced by one marks. The average marks of the top 5 students is

(a) 92   (b) 96   (c) 93   (d) 97

Q.16 The average salary, per head, of all the workers of an institution is Rs 60. The average salary of 12 officers is Rs 400; the average salary, per head, of the rest is Rs 56. The total number of workers in the institution is

(a) 1030   (b) 1035   (c) 1020   (d) 1032

Q.17 The average of 50 numbers is 38. If two numbers, namely 45 and 55 are discarded, the average of the remaining numbers is

(a) 37.5   (b) 37.9   (c) 36.5   (d) 37

Q.18 The average weight of 15 oarsmen in a boat is increased by 1.6 kg when one of the crew, who weighs 42 kg is replaced by a new man. Find the weight of the new man (in kg)

(a) 67   (b) 65   (c) 66   (d) 43

Q.19 Out of four numbers the average of the first three is 16 and that of the last three is 15. If the last number is 20 then the first number is

(a) 23   (b) 25   (c) 28   (d) 21

Q.20 The average marks obtained by a student in 6 subjects is 88. On subsequent verification, it was found that the marks obtained by him in a subject was wrongly copied as 86 instead of 68. The correct average of the marks obtained by him is

(a) 87   (b) 85   (c) 84   (d) 86

Q.21 The average of 6 consecutive natural numbers is K. If the next two natural numbers are also included, how much more than K will the average of these 8 numbers be?

(a) 1.3   (b) 1   (c) 2   (d) 1.8

Q.22 The average of runs of a cricket player of 20 innings was 32. How many runs must he make in his next innings so as to increase his average of runs by 4?

(a) 116   (b) 114   (c) 170   (d) 76

Q.23 The average monthly salary of 19 members of a group is Rs. 16000. If one more member whose monthly salary is Rs. 20000 joins the group, then the average salary of the group is

(a) Rs. 18250   (b) Rs. 16200   (c) Rs. 18000   (d) Rs. 16250

Q.24 The average age of 10 children is 9 years 9 months. The average age of 9 children is 8 years 11 months. What is the age of the tenth child?

(a) 17 years 3 months

(b) 18 years 4 months

(c) 17 years 5 months

(d) 18years 3 months

Q.25 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

(a) 70   (b) 71   (c) 72   (d) 73

Q.26 The average of 12 numbers is 9. If each number is multiplied by 2 and added to 3, the average of the new set of numbers is

(a) 9   (b) 18   (c) 21   (d) 27

Q.27 The averages of runs scored by cricket player in 11 innings is 63 and the average of his first six innings is 60 and the average of last six innings is 65. Find the runs scored by him in the sixth innings

(a) 60   (b) 54   (c) 67   (d) 57

Q.28 The average age of eight teachers in a school is 40 years. A teacher among them died at the age of 55 years whereas another teacher whose age was 39 years joins them. The average age of the teachers in the school now is (in years)

(a) 35   (b) 36   (c) 38   (d) 39

Q.29 If the average age of 4 children is 12 years and the average age of these children and their father is 20 years, what is the age of the father?

(a) 52 years   (b) 48 years   (c) 62 years   (d) 54 years

Q.30 The average age of 36 students in a group is 14 years. When the teacher's age is included in it, the average increases by one. The teacher's age in years

(a) 31   (b) 51   (c) 36   (d) 50

PERCENTAGE

Q.1 28% of 450+ 45% of 280=?

(a) 126   (b) 252   (c) 226   (d) 262

Q.2 In an election contest between A and B, A wins by the margin of 240 votes. If A gets 60% of the total votes, total votes are:

(a) 1000   (b) 900   (c) 800   (d) 1200

Q.3 A's salary is 20% more than B's; B's salary is 10% less than C's. If A's salary is Rs. 1080, find C's salary.

(a) 900   (b) 1200   (c) 1000   (d) none of these

Q.4 What is the percentage increase in the area of a rectangle if its length is increased by 20%?

(a) 44%   (b) 40%   (c) 20%   (d) 16.66%

Q.5 A student obtained 95 marks out of 250 in math. If passing % is 42 then by how many marks did he fail?

(a)10   (b) 12   (c) 15   (d) 20

Q.6 A man earns Rs.4000 in a month and saves 30% of his income .What is his expenditures in a year?

(a) 2800   (b) 33600   (c) 14400   (d) 32000

Q.7 Water tax is increased by 20% but its consumption is decreased by 20%. Then, the increase or decrease in the expenditure of the money is:

(a) No change   (b) 5% decrease   (c) 4% increase   (d) 4% decrease

Q.8 In a college election, a candidate secured 62% of the votes and is elected by a majority of 144 votes. The total number of votes polled is:

(a) 600   (b) 800   (c) 925   (d) 120

Q.9 If the price of an item is decreased by 10% and then increased by 10%, the net effect on the price of the item is:

(a) A decrease of 99%   (b) No change

(c) A decrease of 1%   (d) An increase of 1%

Q.10 A student multiplies a number by 5 instead of dividing it by 5.What is the % change in the result of this mistake?

(a) 100%   (b) 2500%   (c) 2400%   (d) None of these

Q.11 If 30% of A is added to 40% of B, the answer is 80% of B. What percentage of A is B?

(a) 30%   (b) 40%   (c) 70%   (d) 75%

Q.12 Sandeep saves 30% of his salary and spends the remaining. Out of his total saving, he invests 40% in LIC policy, 35% in HDFC and the remaining on the other. If the difference between the amount invested in LIC and others is Rs135, what is his salary?

(a) 3000   (b) 2000   (c) 2800   (d) 1500

Q.13 A candidate scores 25 % marks and fails by 30 marks, while another candidate who scores 50 % marks get 20 marks more than the minimum marks required to pass the examinations. Find the maximum marks for the examination.

(a) 200   (b) 100   (c) 400   (d) 500

Q.14 If the numerator of a fraction is increased by 20% and its denominator is decreased by 10%, the fraction becomes 3/2. Find the original fraction.

(a) 2/3   (b) 7/8   (c) 9/8   (d) 6/7

Q.15 In an examination, 34% of the students failed in Mathematics and 42% failed in English. If 20% of students failed in both the subjects, then the percentage of students who passed was:

(a) 44   (b) 50   (c) 54   (d) 56

Q.16 The total population of a village is 5000. The number of male and female increases by 10% and 15% respectively and consequently the population of the village become 5600. What was the number of males in the village?

(a) 2000   (b) 2500   (c) 3000   (d) 4000

Q.17 If the radius of the cylinder increases by 10 % and the height increases by 20%. Then, what is the change in the volume of the cylinder?

(a) 40%   (b) 32%   (c) 21%   (d) 45.2%

Q.18 A city has a population of 3,00,000, out of which1,80,000 are males. 50% of the population is literate. If 70% of the males are literate, the number of literate females is?

(a) 24,000   (b) 30,000   (c) 54,000   (d) 60,000

Q.19 Virat, Yuvi and Dhoni have certain number of mangoes with them. Yuvi has 10% less mangoes than Virat and Dhoni has 20% less than Virat. By what % is the number of mangoes with Yuvi more than those of Dhoni?

(a) 10%   (b) 12.5%   (c) 15%   (d) 16.66%

Q.20 A, B, C is 3 students. A got 20% more marks than B and 30 % less than C. if B got 175, the how much C got?

(a) 175   (b) 210   (c) 300   (d) 270

PROFIT, LOSS AND DISCOUNT

1. A man sold an umbrella for Rs. 1800 and incurs a loss of 20%, and then what is the cost price of the umbrella?
(a) 1440   (b) 2160   (c) 2250   (d) 2320

2. The CP of an article is 5/6th of the SP. What is the percentage profit or loss?
(a) 20% loss   (b) 16.66% profit
(c) 16.66% loss   (d) 20% profit

3. The cost price of 12 pens is equal to the selling price of 10pens. Find the gain percent.
(a) 20%   (b) 25%   (c) 10%   (d) 16.66%

4. A toy is sold at 25% profit. If it had been sold at 15% loss, the selling price would have been Rs. 120 less. The toy costs
(a) Rs. 240   (b) Rs. 360   (c) Rs. 300   (d) Rs. 350

5. A sold a watch to B at a gain of 20% and B sold it to C at a loss of 10%. If C bought the watch for Rs. 216, at what price did a purchase it?
(a) Rs. 200   (b) Rs. 216   (c) Rs. 250   (d) Rs. 176

6. Instead of selling the bicycle for Rs.2000, a shopkeeper sold it for Rs.1500.Find the loss incurred in transaction.
(a) 20%   (b) 33.33%   (c) 25%   (d) Data inadequate

7. A dealer offers a discount of 10% on the marked price of an article and still makes a profit of 20%. If its marked price is Rs. 800, then the cost price is?
(a) Rs. 600   (b) Rs. 700   (c) Rs. 800   (d) Rs. 900

8. An article is listed at Rs. 1800 and two successive discounts of 8% and 8% are given on it. How much would the seller gain or loss, if he gives a single discount of 16% instead of two discounts?
(a) Rs. 11.52 loss   (b) Rs. 11.52 gain
(c) Rs. 12.62 loss   (d) Rs. 12.52 gain

9. A single discount equivalent to three successive discounts of 5%, 10%, 20% is?
(a) 68.4%   (b) 35%   (c) 31.6%   (d) 32%

10. A shopkeeper allows a 10% discount of to his customers and still gains 20%. Find the marked price of the article which costs Rs 450.
(a) Rs 600   (b) Rs 540   (c) Rs 660   (d) Rs 580

11. A retailer marks all his goods at 50% above the cost price and offers a discount of 25% on the marked price. What is his actual profit on the sales?
(a) 25%   (b) 12.5%   (c) 15%   (d) 20%

12. Pankaj purchased an item for Rs. 7500 and sold it at the gain of 24%. From that amount he purchased another item and sold it at the loss of 20%. What is his overall gain/loss?
(a) Loss of Rs. 140   (b) Gain of Rs. 60
(c) Loss of Rs. 60   (d) neither gain or Loss

13. A man purchases a certain number of toffees at 6 per rupee and the same number of toffees at 7 per rupee. He mixes the toffees and sells them at 6 per rupee. What is his gain or loss percent?
(a) 6.692% loss   (b) 7.692% gain   (c) 7.692% loss   (d) 6.692% gain

14. The difference between the selling prices after a discount of 40% on Rs.500 and two successive discount of 36% and 4% on the same amount is :
(a) 0   (b) Rs.2
(c) Rs.1.93   (d) Rs.7.20

15. A man bought a cycle for Rs250. For how much should he sell it so as to gain 10%?
(a) 225   (b)250
(c) 275   (d)375

16. A machine is sold for Rs5060 at a gain of 10%. What would have been the gain or loss % if it had been sold for Rs 4370?
(a) 5% gain   (b) 5% loss

(c) 15% loss   (d) None of these

17. If a watch is sold at Rs.60, there is a loss of 15% for a profit of 2%, the watch is to be sold at

   (a) Rs 7   (b) Rs 72   (c) Rs 75   (d) Rs 85

18. A shopkeeper marks his goods 20% above cost price, but allows 30% discount for cash. His net loss is
   (a) 8%   (b) 10%   (c) 16%   (d) 20%

19. The marked price of a pencil is 35% more than its cost price. What maximum discount percentage can be offered by the shopkeeper to sell his pencil at no profit or no loss?
   (a) 34.24%   (b) 44.44%   (c) 25.92%   (d) 18.18%

20. Find how much discount % is offered on the sale
1. Buy 3 get 4   2. Buy 3 get 4 free
   (a) 20, 40   (b) 25, 50   (c) 25, 57   (d) 57, 25

CODING AND DECODING

1. If in a certain code "RANGE" is coded as 12345 and "RANDOM" is coded as 123678. Then the code for the word "MANGO" would be?
   (a) 82357   (b) 84629   (c) 82347   (d) 83274

2. If "PROMPT" is coded as QSPLOS, then "PLAYER" should be?
   (a) QMBZFS   (b) QMBXDQ   (c) QUREXM   (d) URESTI

3. In a certain code language, 'no more food' is written as 'ta ka da' and 'more than that' is written as 'sa pa ka'. How is 'that' written in that code language?
   (a) Sa   (b) ka   (c) sa or pa   (d) data inadequate

4. In a certain code GUEST is written as 53@$2 and MEAN is written as 6@4#. How is SAME written in that code?
   (a) 4$6@   (b) $46@   (c) $36@   (d) 5$6@

5. If in a code, 52 – 36 = 97 and 46 – 78 = 1510, then how 53 – 62 can be encoded?
   (a) 1520   (b) 88   (c) 2015   (d) 201

6. In a certain code language 'tree is very beautiful' is written as 'ka na da ta' and 'this is strong tree' is written as 'na pa sa ka'. How is 'beautiful' written in that code language?
   (a) Da   (b) ta   (c) sa   (d) data inadequate

7. In certain code language 'si po re' means 'book is thick', 'ti na re' means 'bag is heavy', 'ka si' means 'interesting book' and 'de ti' means 'that bag'. What should stand for 'that is interesting' in that code language?
   (a) ka re na   (b) de si re   (c) ti po ka   (d) de re ka

8. In certain code, RELATION is written as ZKDQMNHS and NOSE is written as NMDR. How will MISTER be written in that code?
   (a) NHRQFS   (b) QHLMDQ   (c) RHLMDQ   (d) RHLQDS

9. In certain code language, CHANAKYA is coded as ZBPZMZSX. How will KAUTILYA be coded in the same code language?
   (a) ZBMNFGZP   (b) ZBORGFZP   (c) ZBOMFGZP   (d) ZBONGFZP

10. In a certain code language, 732 means 'intelligent trained faculty' 285 means 'highly intelligent student', 816 means 'student and teacher'. Which numerical symbol in that code language stands for 'highly'?
    (a) 5   (b) 8   (c) 7   (d) 2

11. In certain code language, ROCK=47 and LATE=38. Find the code for FOOL.
    (a) 48   (b) 52   (c) 26   (d) 32

12. In certain code language SERIES is coded as 5625 and PIPE is coded as 2116. How will WAP be coded in the same code language?
    (a) 1331   (b) 1600   (c) 1728   (d) 4096

13. If in certain code 1326 is coded as 8673, and 5670 is coded as 4329, then the code for 0009 will be
    (a) 9990   (b) 1110   (c) 8881   (d) 1090

14. If blue is coded as green, green is coded as white and white is code as black, and then what will be the code for the colour of grass?
    (a) White   (b) Green   (c) Black   (d) none of these

15. In a certain code language, 'po se de' means 'she is good', 'tep re po' means 'good are clever' and 'se tep flu' means 'boy is clever'. Which of the following means 'are' in that language?
    (a) re   (b) tep   (c) po   (d) se

16. If 'green' is called 'white', 'white' is called 'yellow', 'yellow' is called 'blue', 'blue' is called 'pink' and 'pink' is called 'black', then what is the colour of milk?
    (a) green   (b) blue   (c) yellow   (d) pink

17. If 35+48=40, 23+34=24, 15+25=26, then 11+21=?
    (a) 15   (b) 18   (c) 10   (d) 20

NUMBER AND SERIES

Find the missing terms:

1. 1, 2, 9, ?, 16900
    (a) 19   (b) 121   (c) 100   (d) 45

2. 2, 4, 16, 512, ?
    (a) 2048   (b) 16384   (c) 524288   (d) 131072

3. 6, 9, 7, 10, 8, 11, ?
    (a) 14   (b) 8   (c) 9   (d) 11

4. 563, 647, 479, 815, ?
    (a) 672   (b) 386   (c) 279   (d) 143

5. 0, 7, 26, 63, 124, ?
    (a) 210   (b) 215   (c) 211   (d) 224

6. 72, 9, 82, 10, 88, 16, 86, 14, 99, ?
    (a) 102   (b) 22   (c) 18   (d) 16

7. 6, 5, 7, 12.5, 27, ?
    (a) 69   (b) 57.5   (c) 67.5   (d) 69.5

8. 2, 11, 58, 295, 1482,?
    (a) 6750   (b) 4450   (c) 6459   (d) 7419

9. 7, 12, 20, 37, 81, 206, ?
    (a) 324   (b) 306   (c) 280   (d) 574

10. 6, 24, 60, 120, 210, ?
    (a) 363   (b) 336   (c) 346   (d) 333

11. 1, 2, 6, 7, 21, 22, 66, 67, ?
    (a) 124   (b) 201   (c) 402   (d) 98

12. 2, 3, 19, 100, 356, 981, ?
    (a) 1289   (b) 2277   (c) 2028   (d) none of these

Direction: Find the odd man out:

13. 6, 9, 15, 21, 24, 28, 30
    (a) 28   (b) 21   (c) 24   (d) 30
14. 10, 25, 45, 54, 60, 75, 80
    (a) 10   (b) 45   (c) 54   (d) 75

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