



## Bank Exam Quants PDF with Answer Keys

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## Percentage, Profit & Loss

- 1) The cost price of an article is Rs. 480. If it is to be sold at a profit of 6.25 per cent, how much would be its selling price?  
(1)Rs. 510 (2)Rs. 530 (3)Rs. 503 (4)Rs. 519 (5) None of these
- 2) 13 articles were bought for Rs. 5,980 and sold for Rs. 6,656. How much was the approximate profit percentage per article?  
(1)15% (2)11% (3)9% (4)19% (5)13%
- 3) The difference between 20% of a number and  $\frac{7}{15}$ th of the same number is 124. What is 40% of that number?  
(1)186 (2)200 (3)196 (4)465 (5) None of these
- 4) In order to pass in an examination, a student is required to get 280 marks out of the aggregate marks. Hema got 264 marks and was declared fail by 2 percent. What is the minimum passing percentage of the examination?  
(1)33 (2)35 (3)40 (4)44 (5) None of these
- 5) Meera purchased 23 bracelets at the rate of Rs. 160 per bracelet. At what rate per bracelet should she sell the bracelets so that profit earned is 15%?  
(1)Rs. 184 (2)Rs. 186 (3)Rs. 192 (4)Rs. 198 (5) None of these
- 6) Last year there were 610 boys in a school. The number decreased by 20 percent this year. How many girls are there in the school if the number of girls is 175 percent of the total number of boys in the school this year?  
(1)854 (2)848 (3)798 (4)782 (5) None of these
- 7) Aryan got 350 marks and Vidya scored 76 percent marks in the same test. If Vidya scored 296 marks more than Aryan, what was the maximum marks of the test?  
(1)650 (2)900 (3)850 (4)950 (5) None of these
- 8) Matthew scored 42 marks in biology, 51 marks in chemistry, 58 marks in mathematics, 35 marks in physics and 48 marks in English. The maximum marks a student can score in each subject are 60. How much overall percentage did Matthew get in this exam?  
(1)76 (2)82 (3)68 (4)78 (5) None of these
- 9)Nandkishore gave 35% of the money he had to his wife and gave 50% of the money he had to his persons. Remaining amount of Rs.11250 he kept for himself. What was the total amount of money Nandkishore had?  
(1) Rs.63750 (2) Rs.75000 (3) Rs.73650 (4) Rs.72450 (5) None of these
- 10)71% of a number is more than its 46% by 120. What is 30% of that number?  
(1) 160 (2) 150 (3) 140 (4) 148 (5) None of these
- 11) A and B started a business investing amounts of Rs.1,50,000 and Rs.2,50,000 respectively. What will be B's share in the profit of Rs.160000?  
(1) Rs.1,00,000 (2) Rs.60,000 (3) Rs.80,000 (4) Rs.1,10,000 (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

12) Shrikant and Vividh started a business investing amounts of Rs. 1,85,000 and Rs. 2,25,000 respectively, If Vividh's share in the profit earned by them is Rs. 9,000, what is the total profit earned by them together?

(1)Rs. 17,400 (2)Rs. 16,400 (3)Rs. 16,800 (4) Rs. 17,800 (5) None of these

13) Mr. Davar spends 38% of his monthly income on food, 25% on children's education and 12% on transport and the remaining amount of Rs. 5,800 he saves. What is Mr. Davar's monthly income?

(1)Rs. 23,200 (2)Rs. 24,200 (3) Rs. 23,800 (4) Rs. 24,400 (5)None of these

14) Nikhil spent 45% of his monthly stipend on food and transport. 20% of the remaining on book and half of the remaining on other expenses. If he is left with Rs.880 now, how much is, his monthly stipend?

(1) Rs.6000 (2) Rs.4500 (3) Rs.3000 (4) Rs.3600 (5) None of these

15) 65% of a number is more than its 36% by 58. What is 23% of that number?

(1) 66 (2) 69 (3) 48 (4) 46 (5) None of these

16) Gaurav spends 40% of the amount he received from his father on hostel expenses, 20% on books and stationery and 50% of the remaining on transport. He saves Rs. 450 which is half the remaining amount after spending on hostel expenses, books etc. and transport. How much money did he get from his father?

(1)Rs . 3,000 (2)Rs. 6,000 (3)Rs. 4,500 (4) Cannot be determined (5)None of these

17) What is sixty five percent of two-fifth of 1800 ?

(1)454 (2)424 (3) 456 (4) 468 (5) None of these

18) What is seventy five percent of three-fourth of 1600?

(1) 1000 (2) 500 (3) 450 (4) 900 (5) None of these

19) Suresh got 78 marks in Hindi, 81 marks in Science, 84 marks in Maths, 67 marks in Social Science and 57 marks in English. The maximum marks of each subject are 100. How much overall percentage of marks did he get ?

(1) 71.3 (2) 75.4 (3) 72.4 (4) 74.3 (5) None of these

20) A shopkeeper marks his goods at such a price that after allowing a discount of 12.50% on the marked price, he still earns a profit of 10% . What is marked price of an article which costs him Rs.4900 is

(1)Rs.5390 (2)Rs.6160 (3)Rs.5490 (4)6260

21) The sum of 35% of a number and 12% of the same number is 3055. What is the 72% of number?

(1)4685 (2)4680 (3) 4675 (4) 4670 (5) None of these

22) Sunil sold an antique flower vase to Vinay at 12% more than the cost price. If Vinay paid Rs. 17,696 for the vase what was its original cost price ?

(1) Rs. 15,500 (2) Rs. 15,820 (3)Rs. 15,800 (4)Rs. 15,520 (5) None of these

23) There are 360 students in a class out of which 35% are day scholars. How many day scholars are there in the class ?

(1) 128 (2) 122 (3) 124 (4) 126 (5) None of these

24) What is seventy four percent of five-eighth of 1200 ?

(1) 555 (2) 565 (3) 445 (4) 455 (5) None of these



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

25) A shopkeeper bought 30 kg of wheat at the rate of Rs.45 per kg. He sold forty percent of the total quantity at the rate of Rs. 50 per kg. Approximately,at what price per kg should he sell the remaining quantity to make 25 per cent overall profit?

- (1)Rs. 54      (2)Rs. 52      (3)Rs. 50      (4)Rs. 60      (5)Rs. 56

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## Ratio and Proportion

Study the following information and answer the questions that follow :

**A sum of Rs. 10,980 is to be divided amongst A, B and C in the ratio 7 : 3 : 5 respectively.**

1) How much is C's share?

- (A) Rs. 3,600 (B) Rs. 3,006 (C) Rs. 3,060 (D) Rs. 3,660 (E)Rs. 3,124

2) What is the sum of B's and C's share?

- (A) Rs. 5,685 (B) Rs. 5,865 (C) Rs. 5,897 (D) Rs. 5,873 (E)Rs. 5,856

3) What is the difference between A's and B's share?

- (A) Rs. 2,196 (B) Rs. 2,928 (C) Rs. 2,961 (D) Rs. 2,289 (E)Rs. 2,982

4) Kajal spends 55% of her monthly income on grocery, clothes and education in the ratio of 4 : 2 : 5 respectively. If the amount spent on clothes is Rs. 5,540. What is Kajal's monthly income?

- (1)Rs.55,400 (2)Rs. 54,500 (3)Rs. 55,450 (4)Rs. 55,650 (5) None of these

5) 35 per cent of a number is two times 75 per cent of another number. What is the ratio between the first and the second numbers respectively?

- (1) 35 : 6 (2) 31 : 7 (3) 23 : 7 (4) 32 : 9 (5) None of these

6) Populations of two villages X and Y are in the ratio of 5 : 7 respectively. If the population of village Y increases by 25000 and the population of village X remains unchanged the respective ratio of their population becomes 25 : 36. What is the population of village X?

- (1) 6,25,000 (2) 6,75,000 (3) 8,75,000 (4) 9,00,000 (5) None of these

7) Four-seventh of a number is equal to 40% of another number. What is the ratio between the first number and the second number respectively?

- (1) 5 : 4 (2) 4 : 5 (3) 10 : 7 (4) 7 : 10 (5) None of these

8) Number of students studying in colleges A and B are in the ratio of 3 : 4 respectively. If 50 more students join college A and there is no change in the number of students in college B, the respective ratio becomes 5 : 6. What is the number of students in College B?

- (1) 450 (2) 500 (3) 400 (4) 600 (5) None of these

9) The 80% of a number is equal to  $\frac{3}{5}$  th of another number. What is the ratio between the first and the second number respectively?

- (1) 3 : 4 (2) 4 : 3 (3) 4 : 5 (4) 5 : 4 (5) None of these

10) 75% of a number is equal to three seventh of another number. What is the ratio between the first number and the second number respectively?

- (1) 4 : 7 (2) 7 : 4 (3) 12 : 7 (4) 7 : 12 (5) None of these

11) Three-seventh of a number is equal to 45 percent of another number. What is respective ratio between the first and the second numbers?

- (1) 21 : 20 (2) 20 : 21 (3) 45 : 100 (4) 45 : 300 (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

12) The ratio between the male and female existing employees in an organization is 7 : 3. The ratio between the male and female new recruits of 240 is 5 : 7. What will be new ratio between male and female employees after the recruits join the organization?

- (1) 6 : 5 (2) 5 : 4 (3) 3 : 2 (4) Cannot be determined (5) None of these

13) 75% of a number is equal to four-fifth of another number. What is the ratio between the first number and the second number respectively?

- (1) 16 : 15 (2) 15 : 14 (3) 5 : 6 (4) 15 : 16 (5) None of these

14) Last year the total number of students in a school was 4500. 48% of the total students were females. This year 60 males left the school. What is the present respective ratio between the number of males and the number of females in the school ?

- (1) 19 : 17 (2) 18 : 17 (3) 23 : 18 (4) 23 : 17 (5) None of these

15) 3850 students appeared for an exam out of which 18% failed. What is the respective ratio between the number of students who passed to the number of students who failed?

- (1) 41 : 9 (2) 43 : 9 (3) 47 : 9 (4) 41 : 7 (5) None of these

16) An amount of money is to be divided among P,Q and R in the ratio of 3 : 5 : 7 respectively. If the amount received by R is Rs. 4,000 more than the amount received by Q, what will be the total amount received by P and Q together?

- (1) Rs. 8,000 (2) Rs. 12,000 (3) Rs. 16,000 (4) Cannot be determined (5) None of these

17) When 30% of one number is subtracted from another number, reduces to its own four-fifth. What is the ratio between the first and the second numbers respectively?

- (1) 4 : 7 (2) 3 : 2 (3) 2 : 5 (4) Cannot be determined (5) None of these

18) Rita invested 25% more than Sunil. Sunil invested 30% less than Abhinav who invested Rs. 6,000. What is the respective ratio between the amount that Rita invested and the total amount invested by all of them together?

- (1) 35 : 104 (2) 13 : 29 (3) 101 : 36 (4) 35 : 103 (5) None of these

19) Twenty percent of Anju's annual salary is equal to seventy five per cent of Raj's annual salary. Raj's monthly salary is 60% of Ravi's monthly salary. If Ravi's annual salary is Rs. 1.44 lacs, what is Anuj's monthly salary?

- (1) Rs. 2,70,000 (2) Rs. 27,000 (3) Rs. 3,24,000 (4) Rs. 5400 (5) None of these

20) Twelve percent of Kaushal's monthly salary is equal to sixteen percent of Nandini's monthly salary. Suresh's monthly salary is half that of Nandini's monthly salary. If Suresh's annual salary is Rs. 108 lacs, what is Kaushal's monthly salary ?

- (1) Rs. 20,000 (2) Rs. 18,000 (3) Rs. 26,000 (4) Rs. 24,000 (5) None of these

21) Mehul's monthly salary is one and a half times Shailesh's monthly salary. Prashant's monthly salary is five-fourth of Mehul's monthly salary. If the total of the monthly salaries of all the three is Rs. 1 83,750.

What is Prashant's monthly salary?

- (1) Rs.42,000 (2) Rs. 68,500 (3) Rs.78,750 (4) Rs. 63,000 (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

22) Mr. Pandit owned 950 gold coins all of which he distributed amongst his three daughters Lalita, Amita and Neeta. Lalita gave 25 gold coins to her husband, Amita donated 15 gold coins and Neeta made Jewellery out of 30 gold coins. The new respective ratio of the coins left with them was 20 : 73 : 83. How many gold coins did Amita receive from Mr. Pandit?  
(1) 380 (2) 415 (3) 400 (4) 350 (5) None of these

23) A sum of Rs. 731 is divided among A, B and C, such that 'A' receives 25% more than 'B' and 'B' receives 25% less than 'C'. What is C's share in the amount ?  
(1) Rs. 172 (2) Rs. 200 (3) Rs. 262 (4) Rs. 258 (5) None of these

**Directions (24 - 25) :** Each of the questions given below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements sufficient to answer the question. Read both the statements and

Give answer (1) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

Give answer (2) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

Give answer (3) if the data in statement I alone or in statement II alone are sufficient to answer the question.

Give answer (4) if the data in both the statements I and II are not sufficient to answer the question.

Give answer (5) if the data in both the statements I and II together are necessary to answer the question.

24) What is the salary of C, in a group of A, B, C, D and E whose average salary is Rs. 48,250 ?  
I. C's salary is 1.5 times B's salary. II. Average salary of A and B is Rs. 23,500.

25) What is Jyoti's annual income ?

I. Jyoti's monthly income is Rs. 8,500 more than Anut's monthly income.

II. Rohit's monthly income is Rs. 3.5 thousand which is half of Amit's monthly income

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## Ages

- 1) 10 Years ago, the ages of A and B were in the ratio 13 : 17 respectively. 17 years from now the respective ratio of their ages will be 10 : 11. What is the age of B at present?  
(1) 23 years (2) 40 years (3) 27 years (4) 44 years (5) None of these
- 2) The average age of a man and his son is 28 years. The ratio of their ages is 3 : 1 respectively. What is the man's age?  
(1) 30 years (2) 38 years (3) 44 years (4) 42 years (5) None of these
- 3) The respective ratio between the present age of father, mother and daughter is 7 : 6 : 2. The difference between mother's and the daughter's age is 24 years. What is father's age at present?  
(1) 43 years (2) 42 years (3) 39 years (4) 38 years (5) None of these
- 4) Present age of father and son are in the ratio of 6 : 1 respectively. Four years hence the ratio of their ages will become 4 : 1 respectively. What is the son's present age?  
(1) 10 years (2) 6 years (3) 4 years (4) 8 years (5) None of these
- 5) The ratio between the ages of a father and his son four years ago was 19 : 6. If the difference between the ages of the father and son is 26 years, what will be the ratio of their present ages?  
(1) 21 : 8 (2) 23 : 8 (3) 23 : 10 (4) 27 : 14 (5) None of these
- 6) The ratio between the present ages of Indu and Lakhvir is 5 : 7 respectively. After eight years Indus age will be 28 years. What was Lakhvir's age 6 years ago?  
(1) 22 years (2) 28 years (3) 34 years (4) 21 years (5) None of these
- 7) The ratio between the present ages of Raman and Suman is 3 : 8 respectively. After two years Suman's age will be 50 years. What was Raman's age 5 years ago?  
(1) 23 years (2) 13 years (3) 18 years (4) 25 years (5) None of these
- 8) The ratio between the present ages of Madan and Kamal is 8 : 5 respectively. After eight years Madan's age will be 40 years. What was Kamal's age 6 years ago?  
(1) 14 years (2) 16 years (3) 12 years (4) 20 years (5) None of these
- 9) The ratio between Binoy's and Alisha's present ages is 5 : 6 respectively. Three years hence the ratio between their ages will be 6 : 7 respectively. What was Alisha's age eight years ago ?  
(1) 7 years (2) 10 years (3) 26 years (4) 18 years (5) None of these
- 10) The ratio between Ritesh's and Sanjay's present ages is 7 : 9 respectively. Six years hence the ratio between their ages will be 4 : 5 respectively. What was Ritesh's age seven years ago ?  
(1) 42 years (2) 35 years (3) 33 years (4) 38 years (5) None of these
- 11) Four years ago the ratio between the ages of Suresh and Deena was 5 : 3 respectively. The ratio between their present ages is 11:7 respectively. What will be Deena's age 3 years hence ?  
(1) 34 years (2) 29 years (3) 33 years (4) 31 years (5) None of these





# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

12) The average age of Nitlka and Kruti is 21 years. The ratio of their ages is 4 : 3 respectively. What is Kruti's present age ?

- (1) 18 years (2) 24 years (3) 26 years (4) 16 years (5) None of these

13) The ratio between the present ages of Tarun and Varun is 3 : 7 respectively. After 4 years Varun's age will be 39 years. What was Tarun's age 4 years ago?

- (1) 12 years (2) 13 years (3) 19 years (4) 18 years (5) 11 years

14) The ratio between the present ages of Punit and Suresh is 4 : 5 respectively. After seven years Punit's age will be 31 years. What was Suresh's age 4 years ago?

- (1) 24 years (2) 28 years (3) 34 years (4) 30 years (5) 26 years

15) The ratio between Priti's and Asha's ages is 9 : 13 respectively. 8 years ago the ratio between their ages was 7:11 respectively. What is Priti's present age ?

- (1) 36 years (2) 52 years (3) 43 years (4) 49 years (5) None of these

16) The difference between the ages of Meena and Seema is 3 years and the ratio between their ages is 7 : 8. What is the sum of their ages?

- (1) 43 (2) 41 (3) 45 (4) 48 (5) 47

17) The ratio between the ages of a father and a son at present is 5 : 2 respectively. Four years hence the ratio between the ages of the son and his mother will be 1 : 2 respectively. What is the ratio between the present ages of the father and the mother respectively?

- (1) 3 : 4 (2) 5 : 4 (3) 4 : 3 (4) Cannot be determined (5) 4:5

18) The ratio of the present ages of Anju and Sandhya is 13 : 17 respectively. Four years ago the respective ratio of their ages was 11 : 15. What will be the respective ratio of their ages six years hence?

- (1) 3 : 4 (2) 7 : 8 (3) 5 : 4 (4) 6 : 5 (5) None of these

19) Radha's present age is three years less than twice her age 12 years ago. Also the respective ratio between Raj's present age and Radha's present age is 4 : 9. What will be Raj's age after 5 years?

- (1) 12 years (2) 7 years (3) 21 years (4) Cannot be determined (5) 17 years

20) Ram's present age is three times his son's present age and two-fifth of his father's present age. If average ages of all of them is 46 years. What is the difference between the Ram's son's present age and Ram's father's present age?

- (1) 68 years (2) 88 years (3) 58 years (4) Cannot be determined (5) 78 years

21) The ratio of the present ages of Meena and Fiona is 16 : 13 respectively. Four years ago the respective ratio of their ages was 14: 11. What will be Fiona's age four years from now?

- (1) 28 years (2) 32 years (3) 26 years (4) 36 years (5) 30 years

22) The respective ratio of the present ages of Swati and Trupti is 4 : 5. Six years hence the respective ratio of their ages will be 6 : 7. What is the difference between their ages?

- (1) 2 years (2) 3 years (3) 4 years (4) Cannot be determined (5) None of these

23) The respective ratio between the present ages of Ram and Rakesh is 6 : 11. Four years ago the ratio of their ages was 1 : 2 respectively. What will be Rakesh's age after five years ?



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

(1) 45 years    (2) 29 years    (3) 49 years    (4) Cannot be determined    (5) None of these

24) The respective ratio between the present ages of son, mother, father and grandfather is 2:7:8:12. The average age of son and mother is 27 years. What will be mother's age after 7 years?

1) 40 years    (2) 41 years    3) 48 years    (4) 49 years    5) None of these

25) The respective ratio between the present ages of Ram, Rohan and Raj is 3 : 4 : 5. If the average of their present ages is 28 years then what would be the sum of the ages of Ram and Rohan together after 5 years?

(1) 45 years            (2) 55 years            (3) 52 years            (4) 59 years            (5) None of these

26) Raman's present age is three times his daughter's present age and nine-thirteenth of his mother's present age. The sum of the present ages of all of them is 125 years. What is the difference between the Raman's daughter's present age and Raman's mother's present age ?

(1) 45 years    (2) 40 years    (3) 50 years    (4) Cannot be determined    (5) None of these

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# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

## Numerical Ability

What value should come in place of the question mark (?) in the following questions?

1.  $3.3 + 13.33 + 31.13 + 13.31 + 1.3 = ?$   
(A) 64.31      (B) 62.37      (C) 64.47      (D) 62.17      (E) None of these
2.  $(16)^2 + (21)^2 - (13)^2 + ? = (25)^2$   
(A) 67      (B) 32      (C) 81      (D) 97      (E) None of these
3.  $47 + 345 \div 15 \times 2 = ?$   
(A) 68      (B) 93      (C) 59      (D) 71      (E) None of these
4.  $73\% \text{ of } 5800 - 69\% \text{ of } 240 = ?$   
(A) 4608.3      (B) 4210.8      (C) 4008.4      (D) 4680.4      (E) None of these
- 5)  $\left(\frac{17}{119} \times \frac{98}{14}\right)^2 = ?$   
(A) 5      (B) 7      (C) 3      (D) 9      (E) None of these
- 6)  $\frac{7}{4} \text{ of } \frac{2}{28} \text{ of } \frac{8}{9} \text{ of } 567 = ?$   
(A) 76      (B) 91      (C) 63      (D) 82      (E) None of these
- 7)  $65 \times 15 \div ? = 195$   
(A) 5      (B) 2      (C) 1      (D) 6      (E) None of these
- 8)  $204\% \text{ of } ? = 1848.24$   
(A) 517      (B) 784      (C) 321      (D) 906      (E) None of these
- 9)  $\frac{17}{24} \div \frac{68}{24} \times \frac{380}{95} = (?)^2$   
(A) 4      (B) 8      (C) 6      (D) 9      (E) None of these
- 10)  $\sqrt{324} + \sqrt{1296} = ?$   
(A) 52      (B) 44      (C) 54      (D) 42      (E) None of these
- 11)  $\frac{9}{5} \text{ of } \frac{265}{513} \text{ of } ? = 159$   
(A) 171      (B) 198      (C) 215      (D) 143      (E) None of these
- 12)  $17^{34.5} \times 17^{68.9} \div 17^{27.4} = 17^?$   
(1) 74.5      (2) 82      (3) 56      (4) 76      (5) None of these
- 13)  $6^3 \times 2^4 - 9^2 = ?$   
(1) 3375      (2) 3248      (3) 3095      (4) 107.64      (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

14)  $7^{8.9} \div (343)^{1.7} \times (49)^{4.8} = 7^?$

- (1) 13.4      (2) 12.8      (3) 11.4      (4) 9.6      (5) None of these

15)  $\sqrt[3]{512} \div \sqrt[4]{16} + \sqrt{576} = ?$

- (1) 24      (2) 31      (3) 22      (4) 18      (5) None of these

16)  $\frac{9.8 \times 2.5 \times 7.6}{0.5} = ?$

- (1) 384.2      (2) 379.5      (3) 364.3      (4) 504      (5) None of these

17)  $3\frac{2}{5} + 1\frac{2}{9} = 4\frac{4}{5} - ?$

- (1)  $\frac{8}{45}$       (2)  $\frac{7}{47}$       (3)  $\frac{4}{45}$       (4)  $\frac{8}{51}$       (5) None of these

18)  $\frac{5}{9}$  of 504 +  $\frac{3}{8}$  of 640 = ?

- (1) 520      (2) 480      (3) 460      (4) 540      (5) None of these

19)  $\frac{4}{9}$  of  $\frac{3}{8}$  of  $\frac{2}{7}$  of 294 = ?

- (1) 24      (2) 14      (3) 16      (4) 22      (5) None of these

20) 16% of 250 + 115% of 480 = ?

- (1) 522      (2) 588      (3) 582      (4) 498      (5) None of these

21)  $16.45 \times 2.8 + 4.5 \times 1.6 = ?$

- (1) 56.23      (2) 56.32      (3) 53.26      (4) 53.66      (5) None of these

22) 55% of 860 + ?% of 450 = 581

- (1) 24      (2) 28      (3) 32      (4) 36      (5) None of these

23)  $\frac{17 \times 4 + 4^2 \times 2}{90 \div 5 \times 12} = ?$

- (1)  $\frac{25}{54}$       (2)  $\frac{22}{57}$       (3)  $\frac{11}{27}$       (4)  $\frac{13}{27}$       (5) None of these

24) 48% of 525 + ?% of 350 = 399

- (1) 42      (2) 46      (3) 28      (4) 26      (5) None of these

25)  $\frac{28 \times 5 - 15 \times 6}{7^2 + \sqrt{256} + (13)^2} = ?$

- (1)  $\frac{27}{115}$       (2)  $\frac{22}{117}$       (3)  $\frac{25}{117}$       (4)  $\frac{22}{115}$       (5) None of these



## Approximate Calculation

What approximate value should come in place of the question mark (?) in the following questions ??  
(NOTE : You are not expected to calculate the exact value.)

- 1)  $11.304 \times (6.839 - 4.331) = ?$   
(1)30            (2)45   3)16            (4)52   (5)12
- 2)  $61 \times 24.879 + (14.059 - 6) = ?$   
(1)110            (2)190   (3)220            (4)348   (5)98
- 3)  $(3.805)^2 \times 14.018 - 5.991 = ?$   
(1)165            (2)305   (3)278            (4)128   (5)200
- 4)  $\sqrt{230} \div 2.017 + 58.794 = ?$   
(1)80            (2)102   (3)68            (4)96   (5)77
- 5)  $3451 \div 9.895 \times 3.0126 = ?$   
(1)1050            (2)1235   (3)990            (4)1360   (5)1248
- 6)  $1504 \times 5.865 - 24.091 = ?$   
(1)7200            (2)9500   (3)6950            (4)5480   (5)8800
- 7)  $16.928 + 24.7582 + 5.015 = ?$   
(1)35            (2)40   (3)22            (4)12   (5)45
- 8)  $\sqrt[3]{7.938} \times (6.120)^2 - 4.9256 = ?$   
(1)70            (2)55   (3)30            (4)25   (5)90
- 9)  $16.046 \div 2.8 \times 0.599 = ?$   
(1)3.5            (2)7.9   (3)1.9            (4)5.6   (5)6.2
- 10)  $\sqrt{963} \div (4.895)^2 - 9.24 = ?$   
(1)60            (2)35   (3)85            (4)45   (5)25
- 11)  $\sqrt{62627} = ?$   
(1) 280   (2) 220   (3)250   (4)330   (5) 190
- 12)  $44.979 \times 20.011 \div 9.968 = ?$   
(1)30   (2)60   (3) 150   (4) 180   (5) 90



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

- 13)  $\sqrt{7255} = ?$   
(1) 35 (2) 55 (3) 115 (4) 85 (5) 135
- 14)  $7263 \div 14 = ?$   
(1) 490 (2) 470 (3) 550 (4) 570 (5) 520
- 15)  $59.899 \times 5.002 \times 14.989 = ?$   
(1) 4900 (2) 4100 (3) 3900 (4) 5000 (5) 4500
- 16)  $0.501 \times 10.011 \times 52.83 = ?$   
(1) 205 (2) 225 (3) 245 (4) 285 (5) 265
- 17)  $2534 \div 23 = ?$   
(1) 10 (2) 210 (3) 150 (4) 60 (5) 110
- 18)  $\sqrt{4590} = ?$   
(1) 38 (2) 18 (3) 68 (4) 84 (5) 98
- 19)  $16.002 \times 14.897 \times 20.334 = ?$   
(1) 4100 (2) 4300 (3) 4500 (4) 4800 (5) 5100
- 20)  $4005.33 \div 19.89 \times 1.9 = ?$   
(1) 470 (2) 300 (3) 400 (4) 370 (5) 500
- 21)  $1548.45 + 3065.15 \div 15.058 = ?$   
(1) 1700 (2) 1650 (3) 1840 (4) 1750 (5) 1950
- 22)  $6\frac{2}{5}$  of 248.65 = ? of 2398.59  
(1)  $\frac{2}{5}$  (2)  $\frac{1}{4}$  (3)  $\frac{1}{2}$  (4)  $\frac{1}{3}$  (5)  $\frac{2}{3}$
- 23) 39% of 695 = 10% of ?  
(1) 2800 (2) 2400 (3) 3200 (4) 31000 (5) 2500
- 24)  $6\sqrt{2} + 14.275 = ?$  of 196.35  
(1)  $\frac{1}{3}$  (2)  $\frac{1}{4}$  (3)  $\frac{1}{8}$  (4)  $\frac{1}{5}$  (5)  $\frac{1}{2}$
- 25)  $1524.79 \times 19.92 + 495.26 = ?$   
(1) 33,000 (2) 78,535 (3) 31,000 (4) 26,575 (5) 34,000
- 26) 57% of 394 - 2.5% of 996 = ?  
(1) 215 (2) 175 (3) 200 (4) 180 (5) 205



# SHAKTHI ACADEMY

## Increasing Confidence ; Reaching Goals

27)  $96.996 \times 9.669 + 0.96 = ?$

- (1)860      (2)870      (3)1020      (4)940      (5)1100

28)  $\frac{3}{5} \times \frac{1125}{1228} \times 7 = ?$

- (1)7      (2)12      (3)9      (4)4      (5)15

29)  $(\sqrt{339} \times 25) + 30 = ?$

- (1)12      (2)15      (3)24      (4)21      (5)9

30)  $(638 + 9706 - 216) \div 26 = ?$

- (1)275      (2)365      (3)420      (4)300      (5)390

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# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

## Number Series

**Directions – (Q.1 - 30) :** What should come in place of the question mark (?) in the following number series ?

- 1) 7 17 54 ? 1098 6591  
(1) 204 (2) 212 (3) 223 (4) 219 (5) None of these
- 2) 19 38 ? 228 684 1368  
(1) 106 (2) 114 (3) 121 (4) 98 (5) None of these
- 3) 87 89 95 107 ? 157  
(1) 127 (2) 122 (3) 139 (4) 140 (5) None of these
- 4) 474 459 429 369 249 ?  
(1) 9 (2) 0 (3) 4 (4) 11 (5) None of these
- 5) 9 10 24 81 340 ?  
(1) 1376 (2) 1780 (3) 1570 (4) 1725 (5) None of these
- 6) 11 13 16 20 ?  
(1) 24 (2) 26 (3) 28 (4) 27 (5) None of these
- 7) 7 13 25 49 ?  
(1) 99 (2) 97 (3) 89 (4) 87 (5) None of these
- 8) 608 304 152 76 ?  
(1) 39 (2) 36 (3) 38 (4) 37 (5) None of these
- 9) 8 9 20 63 ?  
(1) 256 (2) 252 (3) 246 (4) 242 (5) None of these
- 10) 5 6 10 19 ?  
(1) 28 (2) 37 (3) 36 (4) 35 (5) None of these
- 11) 7 9 12 16 ?  
(1) 22 (2) 19 (3) 20 (4) 21 (5) None of these
- 12) 384 192 96 48 ?  
(1) 36 (2) 28 (3) 24 (4) 32 (5) None of these
- 13) 5 6 14 45 ?  
(1) 183 (2) 185 (3) 138 (4) 139 (5) None of these
- 14) 8 9 13 22 ?  
(1) 30 (2) 31 (3) 34 (4) 36 (5) None of these
- 15) 6 11 21 41 ?





# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

(1) 81 (2) 61 (3) 71 (4) 91 (5) None of these

16) 12 16 24 40 ?  
(1) 76 (2) 72 (3) 84 (4) 88 (5) None of these

17) 9 19 39 79 ?  
(1) 139 (2) 129 (3) 159 (4) 172 (5) None of these

18) 8 17 42 91 ?  
(1) 170 (2) 142 (3) 140 (4) 226 (5) None of these

19) 7 8 18 5 7 ?  
(1) 244 (2) 174 (3) 186 (4) 226 (5) None of these

20) 3840 960 240 60 ?  
(1) 20 (2) 18 (3) 12 (4) 22 (5) None of these

21) 4 6 16 54 ?  
(1) 280 (2) 232 (3) 228 (4) 224 (5) None of these

22) 5 39 272 1631 ?  
(1) 4892 (2) 6523 (3) 8154 (4) 9785 (5) None of these

23) 768 192 48 12 ?  
(1) 2 (2) 3 (3) 4 (4)  $\frac{1}{3}$  (5) None of these

24) 12 16 32 68 ?  
(1) 84 (2) 168 (3) 137 (4) 264 (5) None of these

25) 7 15 32 67 ?  
(1) 138 (2) 198 (3) 137 (4) 264 (5) None of these

26) 28 37 64 109 172 (?)  
(1) 253 (2) 265 (3) 234 (4) 246 (5) None of these

27) 23 439 647 751 803 (?)  
(1) 864 (2) 819 (3) 855 (4) 825 (5) None of these

28) 13 52 29 68 45  
(1) 97 (2) 74 (3) 84 (4) 76 (5) None of these

29) 23 35 59 107 203 ?  
(1) 395 (2) 398 (3) 375 (4) 384 (5) None of these .

30) 65 82 69 86 73 (?)  
(1) 60 (2) 90 (3) 93 (4) 70 (5) None of these



## Numbers

- 1) The product of three successive numbers is 3360. What is the least number?  
(1) 17                      (2) 14      (3) 13                      (4) 16      (5) None of these
- 2) On a particular day, sweets were to be equally distributed among 960 students of a school. However, on that particular day 360 students remained absent. Hence each student present on that day got three sweets extra. Had all 960 students remained present that day, how many sweets would each student have got?  
(1) 3                      (2) 5      (3) 7                      (4) 4      (5) None of these
- 3) What is the least number to be added to 2530 to make it a perfect square?  
(1) 50                      (2) 65      (3) 75                      (4) 80      (5) None of these
- 4) Difference between the digits of a two digit number is 5 and the digit in the unit's place is six times the digit in the ten's place. What is the number?  
(1) 27                      (2) 72      (3) 16                      (4) 61      (5) None of these
- 5) Which set of the following fractions is in descending order?  
(1)  $\frac{7}{8}, \frac{5}{7}, \frac{2}{3}, \frac{3}{5}$       (2)  $\frac{3}{5}, \frac{2}{3}, \frac{5}{7}, \frac{7}{8}$       (3)  $\frac{7}{8}, \frac{5}{7}, \frac{3}{5}, \frac{2}{3}$       (4)  $\frac{2}{3}, \frac{3}{5}, \frac{5}{7}, \frac{7}{8}$       (5) None of these
- 6) The 56% of a number is less than its 72% by 56. What is 70% of that number?  
(1) 300                      (2) 235      (3) 240                      (4) 350      (5) None of these
- 7) Sum of five consecutive even numbers is 380. What is the second number in ascending order?  
(1) 76                      (2) 78      (3) 74                      (4) 72      (5) None of these
- 8) Sum of the digits of a two digit number is 8 and the digit in the ten's place is three times the digit in the unit's place. What is the number?  
(1) 26                      (2) 36      (3) 71                      (4) 62      (5) None of these
- 9) If the fractions  $\frac{9}{11}, \frac{7}{9}, \frac{5}{6}, \frac{4}{5}$  and  $\frac{11}{13}$  are arranged in ascending order, which one will be the fourth?  
(1)  $\frac{9}{11}$                       (2)  $\frac{7}{9}$       (3)  $\frac{5}{6}$                       (4)  $\frac{4}{5}$       (5)  $\frac{11}{13}$
- 10) A, B, C, D and E are five consecutive odd numbers. Average of A and C is 59. What is the smallest number?  
(1) 65                      (2) 63      (3) 61                      (4) 57      (5) None of these
- 11) The sum of the average of three consecutive odd numbers and three consecutive even numbers is 21. If the highest even number is 16, what is the lowest odd number?  
(1) 5                      (2) 7      (3) 9                      (4) 11      (5) None of these
- 12) Which of the following has the fractions in ascending order?  
(1)  $\frac{2}{7}, \frac{3}{5}, \frac{5}{11}, \frac{6}{17}$       (2)  $\frac{2}{7}, \frac{6}{17}, \frac{5}{11}, \frac{3}{5}$       (3)  $\frac{6}{17}, \frac{2}{7}, \frac{5}{11}, \frac{3}{5}$       (4)  $\frac{2}{7}, \frac{6}{17}, \frac{3}{5}, \frac{5}{11}$       (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

- 13) The average of five consecutive odd numbers is 84 percent of the highest number. What is the sum of the first two of these numbers?  
(1) 64      (2) 32      (3) 36      (4) 44      (5) None of these
- 14) The digit in the tenth's place in a two-digit number exceeds the digit in the unit's place by 3. If the sum of the digits is 7, what is definitely the number?  
(1) 25      (2) 52      (3) 43      (4) Cannot be determined      (5) None of these
- 15) What will come in place of both the question marks (?) in the following questions?  
 $(?)^{4/5}/48 = 12/(?)^{6/5}$   
(1) - 48      (2) - 12      (3) 48      (4) 12      (5) 24
- 16) How many bags are required for filling 2286 kg of wheat if each bag is filled with 127 kg of wheat?  
(1) 23      (2) 18      (3) 16      (4) 21      (5) None of these
- 17) What value will be obtained if the cube of 6 is subtracted from the square of 29 ?  
(1) 645      (2) 625      (3) 565      (4) 545      (5) None of these
- 18) What will come in place of both the question marks (?) in the following questions ?  
 $(?)^{9/4}/324 = (?)^{1/4}/9$   
(1) 27      (2)  $(36)^2$       (3) 6      (4) 36      (5)  $\sqrt{6}$
- 19) If the numerator of a fraction is increased by 200% and the denominator is increased by 300% the resultant fraction is  $9/20$ . What is the original fraction?  
1)  $3/7$       2)  $4/5$       3)  $3/5$       4)  $4/7$       5) None of these
- 20) If the numerator of a fraction is increased by 150% and the denominator of the fraction is increased by 350%, the resultant fraction is  $\frac{25}{51}$ , what is the original fraction?  
(1)  $\frac{11}{17}$       (2)  $\frac{11}{15}$       (3)  $\frac{15}{17}$       (4)  $\frac{13}{15}$       (5) None of these
- 21) By how much is  $\frac{3}{4}$ th of 968 less than  $\frac{7}{8}$ th of 1008?  
(1) 154      (2) 146      (3) 165      (4) 158      (5) None of these
- 22) There are two numbers such that the sum of twice the first number and thrice the second number is 100 and the sum of thrice the first number and twice the second number is 120. Which is the larger number?  
(1) 32      (2) 12      (3) 14      (4) 35      (5) None of these
- 23) On the annual day, sweets were to be distributed equally amongst 600 children of the school. But on that particular day, 120 children remained absent. Thus, each child got 2 extra sweets. How many sweets was each child originally supposed to get?  
(1) 8      (2) 14      (3) 10      (4) 6      (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

24) The sum of the squares of two consecutive even numbers is 6500. Which is the smaller number?

- (1) 54                      (2) 52                      (3) 48                      (4) 56                      (5) None of these

25) Philip, Tom and Brad start jogging around a circular field and complete a single round in 18, 22 and 30 seconds respectively. In how much time will they meet again at the starting point?

- (1) 8 mins, 15 secs.    (2) 21 mins.    (3) 16 mins, 30 secs.    (4) 12 mins.    (5) None of these

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## Simple Equation

- 1) Cost of 24 pens and 13 pencils is Rs.175. What is the cost of 48 pens and 26 pencils?  
(1)Rs. 435 (2)Rs. 705 (3)290 (4)Rs. 350 (5)None of these
- 2) The cost of 8 fans and 14 ovens is Rs. 36,520. What is the cost of 12 fans and 21 ovens?  
(1)Rs. 56,800 (2)Rs. 54,780 (3)Rs. 57,950 (4)Cannot be determined (5)None of these
- 3) Bus fare between Raipur and Mirpur for one adult is six times the fare for one child. If an adult's bus fare is Rs. 114, how much amount will be paid by 4 adults and 5 children together for travelling the same distance?  
(1)Rs. 505 (2)Rs. 551 (3)Rs. 572 (4)Rs. 560 (5)None of these
- 4) Cost of 6 dozen apples and 8 dozen bananas is Rs.1400. What will be the cost of 15 dozen apples and 20 dozen bananas?  
(1)Rs.3200 (2)Rs.3500 (3)Rs.3600 (4)Rs.4200 (5)None of these
- 5) Cost of 12 belts and 30 wallets is Rs.8940. What is the cost of 4 belts and 10 wallets?  
(1)Rs.2890 (2)Rs.2980 (3)Rs.2780 (4)Rs.2870 (5)None of these
- 6) Cost of 18 shirts and 45 trousers is Rs. 68,400. What is the cost of 10 shirts and 25 trousers?  
(1)Rs. 38,000 (2)Rs. 36,000 (3)Rs. 34,200 (4)Rs. 36,200 (5)None of these
- 7) The total cost of 45 pens and 24 pencils is Rs.675. What is the total price of 15 pens and 8 pencils?  
(1)Rs.225 (2)Rs.245 (3)Rs.337.5 (4)Cannot be determined (5)None of these
- 8) Cost of 24 bats and 32 sticks is Rs. 5,600. What is the price of 3 bats and 4 sticks?  
(1)Rs. 1,400 (2)Rs. 2,800 (3)Rs. 700 (4)Data inadequate (5)None of these
- 9) The cost of 8 gel pens and 12 ball pens is Rs. 82. What would be the cost of 36 gel pens 54 ball pens ?  
(1)Rs. 366 (2)Rs. 365 (3)Rs. 369 (4)Rs. 364 (5)None of these
- 10) Mohan purchased 15 kgs of rice at the rate of Rs.26 per kg and 8 kgs of pulses at the rate of Rs.26 per kg. What is the total amount that he paid to the shopkeeper?  
(1)Rs. 598 (2)Rs. 594 (3)Rs. 596 (4)Rs.595 (5)None of these
- 11) The cost of 5 sharpeners and 14 pencils is Rs. 56. What would be the cost of 15 sharpeners and 42 pencils?  
(1)Rs. 112 (2)Rs.224 (3)Rs.186 (4)Rs. 164 (5)168
- 12) A man sold 15 units of wood and the cost of each unit of wood was Rs. 32. Then he bought 2 kgs of rice with his earnings at the rate of Rs. 28 per kg. How much money was the man left with after buying the rice?  
(1)Rs. 442 (2)Rs. 434 (3)Rs. 424 (4)Rs. 414 (5)Rs. 454
- 13) The total cost of 30 purses and 20 wallets is Rs. 8500. What will be the total cost of 117 purses and 78 wallets?  
(1)Rs.32,150 (2)Rs.33,510 (3)Rs.33,550 (4)Rs.33,150 (5)None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

- 14) A reporter writes 23 articles a month. How many articles will he have written in 1.5 years?  
(1) 414 (2) 424 (3) 418 (4) 404 (5) 423
- 15) The bus fare for one person is Rs. 420 from Agra to Aligarh and train fare between the same places for one person is equal to three-fourth the bus fare for two persons between the same places. What is the total fare paid by 2 persons travelling by bus and 4 persons travelling by train between the two places?  
(1) Rs. 3,360 (2) Rs. 3,460 (3) Rs. 3,440 (4) Rs. 3,406 (5) None of these
- 16) Arun ordered 15 chapattis, 4 plates of rice, 6 plates of mixed vegetables and 5 ice-cream cups. The cost of one chapatti is Rs. 5, one plate of rice is Rs. 50, one plate of mixed vegetables is Rs. 75 and one ice-cream cup is Rs. 20. How much amount did Arun pay to the cashier ?  
(1) Rs. 850 (2) Rs. 795 (3) Rs. 825 (4) Rs. 750 (5) None of these
- 17) Deepak has some hens and some goats. If the total number of animal heads is 90 and the total number of animal feet is 248, what is the total number of goats Deepak has?  
(1) 32 (2) 36 (3) 34 (4) Cannot be determined (5) None of those
- 18) The cost of 5 kg of apples is Rs. 450. The cost of 12 dozen of mangoes is Rs.4320 and the cost of 4 kg of oranges is Rs. 240. What is the total cost of 8 kg of apples, 8 dozens of mangoes and 8 kg of oranges?  
(1) Rs. 4,020 (2) Rs. 4,080 (3) Rs. 4,000 (4) Rs. 4,050 (5) None of these
- 19) If  $2x + 3y = 78$  and  $3x + 2y = 72$ , what is the value of  $x + y$  ?  
(1) 36 (2) 32 (3) 30 (4) Cannot be determined (5) None of these
- 20) Veena's monthly income is equal to the cost of 34kg of nuts. Cost of 10kg of nuts is equal to the cost of 20 kgs of apples. If cost of 12 kg of apples is Rs.1500, what is Veena's annual salary ? (At some places annual income and at some place monthly income are given)  
(1) Rs. 1 lac 20 thousand (2) Rs. 1 lac 2 thousand (3) Rs. 2 lacs 20 thousand  
(4) Cannot be determined (5) None of these
- 21) Rohit has some 50 paisa coins, some 2 rupee coins, some 1 rupee coins and some 5 rupee coins. The value of all the coins is Rs. 50. Number of 2 rupee coins is 5 more than that of the 5 rupee coins. 50 paisa coins are double in number than 1 rupee coins. The Value of 50 paisa coins and 1 rupee coins is Rs. 26. How many 2 rupee coins does he have ?  
(1) 4 (2) 2 (3) 7 (4) Cannot be determined (5) None of these
- 22) Raju purchases 550 ml of milk everyday. If cost of one litre of milk is Rs. 44, how much amount will he pay in 45 days ?  
(1) Rs. 1,098 (2) Rs. 1,079 (3) Rs. 1,099 (4) Rs. 1,088 (5) Rs.1089
- 23) Call rate of a Sim company-A is 1paise for every 3 seconds. Another sim company-B charges 45 paise per minute. A man talked 591 seconds from Sim Company-A and 780 seconds from Sim company-B. What would be the total amount he spent ?  
(1) Rs. 7.80 (2) Rs. 7.40 (3) Rs. 7.46 (4) Rs. 7.82 (5) Rs. 8.46



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and

Give answer (1) if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.

Give answer (2) if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.

Give answer (3) if the data in Statement I alone or in Statement II alone are sufficient to answer the question.

Give answer (4) if the data in both the Statements I and II are not sufficient to answer the question.

Give answer (5) if the data in both the Statements I and II together are necessary to answer the question.

24) What is the cost of three tables and two chairs ?

I. Cost of four chairs is twice the cost of three tables.

II. Cost of two tables is equal to cost of one cot, i.e. Rs. 500

25) What is the total cost of 4 kgs of apples and 3 kgs of mangoes together?

I. Cost of 2 kgs of apples is Rs.170 and one kg of mangoes is Rs. 50.

II. The total cost of 5 kgs of apples and 4 kgs of mangoes is Rs. 410.

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## Quadratic Equation

In the following questions two equations numbered I and II are given. You have to solve both the equations and

**Give answer (1) if  $x > y$**       **Give answer (2) if  $x \geq y$**       **Give answer (3) if  $x < y$**

**Give answer (4) if  $x \leq y$**       **Give answer (5) if  $x = y$  or the relationship cannot be established.**

1) I.  $x^2 - x - 12 = 0$       II.  $y^2 + 5y + 6 = 0$

2) I.  $x^2 - 8x + 15 = 0$       II.  $y^2 - 3y + 2 = 0$

3) I.  $x^2 - 32 = 112$       II.  $y - \sqrt{169} = 0$

4) I.  $x - \sqrt{121} = 0$       II.  $y^2 - 121 = 0$

5) I.  $x^2 - 16 = 0$       II.  $y^2 - 9y + 20 = 0$

In the following questions two equations numbered I and II are given. You have to solve both the questions and \_\_\_\_\_

**Give answer (1) if  $x > y$**       **Give answer (2) if  $x \geq y$**       **Give answer (3) if  $x < y$**

**Give answer (4) if  $x \leq y$**       **Give answer (5) if  $x = y$  or the relationship cannot be established**

6) I.  $3x^2 - 8x + 4 = 0$       II.  $4y^2 - 19y + 12 = 0$

7) I.  $x^2 + x - 20 = 0$       II.  $y^2 + y - 30 = 0$

8) I.  $x^2 - 365 = 364$       II.  $y - \sqrt{324} = \sqrt{81}$

9) I.  $\frac{4}{\sqrt{x}} + \frac{7}{\sqrt{x}} = \sqrt{x}$       II.  $y^2 - \frac{(11)^{\frac{5}{2}}}{\sqrt{y}} = 0$

10) I.  $225x^2 - 4 = 0$       II.  $\sqrt{225y} + 2 = 0$

In the following questions two equations numbered I and II are given. You have to solve both the equations and —

**Give answer (1) if  $x > y$**       **Give answer (2) if  $x \geq y$**       **Give answer (3) if  $x < y$**       **Give answer (4) if  $x \leq y$**

**Give answer (5) if  $x = y$  or the relationship cannot be established**

11) I.  $5x^2 - 18x + 9 = 0$       II.  $20y^2 - 13y + 2 = 0$

12) I.  $x^3 - 878 = 453$       II.  $y^2 - 82 = 39$

13) I.  $\frac{3}{\sqrt{x}} + \frac{4}{\sqrt{x}} = \sqrt{x}$       II.  $y^3 - \frac{(7)^{\frac{7}{2}}}{\sqrt{y}} = 0$

14) I.  $9x - 15.45 = 54.55 + 4x$       II.  $\sqrt{y+155} - \sqrt{36} = \sqrt{49}$

15) I.  $x^2 - 11x + 30 = 0$       II.  $y^2 + 7y + 12 = 0$





# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

In each of these questions an equation is given with a question mark (?) in place of a correct symbol. Based on the values on the right hand side and the left hand side of the question mark; you have to decide which of the following symbols will come in place of the question mark.

Give answer If in place of question mark (?) following will come

1 > (greater than)    2 = (equal to)    3 < (lesser than)    4  $\geq$  (either greater than or equal to)

5  $\leq$  (either lesser than or equal to)

16)  $[(56 \div 7) + (72 \div 8)] ? [(122 - 27) \div 5] \rightarrow ?$

17)  $[107 - (67 + 69)] ? [(15)^2 \times 3 - 646] \rightarrow ?$

18)  $[(65 - (7)^2) \times 2] ? [4^2 \times 3 - (4 \times 3)] \rightarrow ?$

19)  $[(\sqrt{289} - \sqrt{81})] ? \pm [\sqrt{64}] \rightarrow ?$

20)  $[(4 \times 8) + 15] ? [\sqrt{729} + 19] \rightarrow ?$

In each of these questions an equation is given with a question mark (?) in place of a correct symbol. Based on the values on the right hand side and the left hand side of the question mark you have to decide which of the following symbols will come in place of the question mark.

Give answer If in place of question mark (?) following will come

(1) > (greater than)

(2) = (equal to)

(3) < (less than)

(4)  $\geq$  (either greater than or equal to)

(5)  $\leq$  (either lesser than or equal to)

21)  $[(58 \times 6) \div 29] ? [\sqrt{324} - (2)^2] \rightarrow ?$

22)  $[(\sqrt{256} - \sqrt{49})] ? [-\sqrt{81}] \rightarrow ?$

23)  $[143 - (56 - 42)] ? [(11)^2 + \sqrt{64}] \rightarrow ?$

24)  $[(42 \div 6) + (54 \div 9)] ? \pm [(162 - 71) \div 7] \rightarrow ?$

25)  $[58 - 4^2 \times 3] ? (5^2 \times 8 - (38 \times 5)) \rightarrow ?$

In the following questions two equations numbered I and II are given. You have to solve both the equations and

Give answer (1) if  $x > y$     Give answer (2) if  $x \geq y$     Give answer (3) if  $x < y$

Give answer (4) if  $x \leq y$     Give answer (5) if  $x = y$  or the relationship cannot be established

26) I.  $\sqrt{x} - \frac{\sqrt{6}}{\sqrt{x}} = 0$     II.  $y^3 - 6\left(\frac{3}{2}\right) = 0$

27) I.  $3x - 2y = 10$     II.  $5x - 6y = 6$

28) I.  $x^2 + x - 12 = 0$     II.  $y^2 - 5y + 6 = 0$



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

29) I.  $x^2 + 9x + 18 = 0$       II.  $y^2 - 13y + 40 = 0$

30) I.  $\sqrt{x+6} = \sqrt{121} - \sqrt{36}$       II.  $y^2 + 112 = 473$

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## Mensuration

- 1) The area of a circle is 2464 square metres. What will be its circumference?  
(A) 132 metres (B) 176 metres (C) 231 metres (D) 272 metres (E) 109 metres
- 2) If the perimeter of a rectangle is 138 metres and the difference between the length and the breadth is 7 metres, what is the area of the rectangle?  
(A) 1216 square metres (B) 1147 square metres (C) 1184 square metres  
(D) 1178 square metres (E) None of these
- 3) Radius of a circular garden is 7 metre more than length of a rectangle whose perimeter is 364 metre and breadth is 84 metre. What will be cost of fencing the garden (only at the circumference), if the cost of fencing is Rs. 8 per metre?  
(1) Rs. 5456 (2) Rs. 6144 (3) Rs. 5296 (4) Rs. 5280 (5) None of these
- 4) Area of a rectangular field is  $3584 \text{ m}^2$  and the length and the breadth are in the ratio 7 : 2 respectively. What is the perimeter of the rectangle?  
(1) 246 m. (2) 292 m. (3) 286 m. (4) 288 m. (5) None of these
- 5) The area of a square is 64 sq.cm. less than half of the area of a rectangle. The length of the rectangle is 32 cms. and its breadth is 12 cm. less than its length. What is the perimeter of the square ?  
(1) 192 cm (2) 96 cm (3) 64 cm (4) Cannot be determined (5) None of these
- 6) The length of a rectangle is 17 cms. which is 3 cms. more than the diameter of a circle. What is the area of the circle ?  
(1) 132 sq. cm. (2) 264 sq. cm. (3) 312 sq. cm. (4) 154 sq. cm. (5) None of these
- 7) The area of a square is four times the area of a rectangle. The length of the rectangle is 25 cm. and its breadth is one cm less than one-fifth of its length. What is the perimeter of the square ?  
(1) 40 cm. (2) 60 cm. (3) 160 cm. (4) Cannot be determined (5) None of these
- 8) The length of a rectangle is 24 cm. which is 10 cm. more than the diameter of a circle. What is the area of the circle ?  
(1) 210 sq.cm. (2) 176 sq.cm. (3) 132 sq.cm. (4) 154 sq.cm. (5) None of these
- 9) The area of a rectangle is four third the area of a square. The area of the square is 729 sq. cms. and the length of the rectangle is 81cms. What is the difference between the side of the square and the breadth of the rectangle?  
(1) 18 cms. (2) 27 cms. (3) 24 cms. (4) 15 cms. (5) None of these
- 10) The circumference of a circle is equal to the perimeter of a rectangle. The length and the breadth of the rectangle are 45 cms and 43 cms. respectively. What is half the radius of the circle?  
(1) 56 cms. (2) 14 cms. (3) 28 cms. (4) 7 cms. (5) None of these



## Increasing Confidence ; Reaching Goals

11) The largest and the second largest angles of a triangle are in the ratio of 3 : 2 respectively. The smallest angle is 20% of the sum of the largest and the second largest angles. What is the sum of the smallest and the second largest angles?

- (1)  $80^\circ$  (2)  $60^\circ$  (3)  $100^\circ$  (4)  $90^\circ$  (5) None of these

12) The ratio between the angles of a quadrilateral is 7 : 2 : 5 : 6 respectively. What is the sum of double the smallest angle and half the largest angle of the quadrilateral?

- (1)  $162^\circ$  (2)  $198^\circ$  (3)  $99^\circ$  (4)  $135^\circ$  (5) None of these

13) The angles of a quadrilateral are in the ratio of 2 : 4 : 7 : 5. The smallest angle of the quadrilateral is equal to the smallest angle of a triangle. One of the angles of the triangle is twice the smallest angle of the triangle. What is the second largest angle of the triangle?

- (1)  $80^\circ$  (2)  $60^\circ$  (3)  $120^\circ$  (4) Cannot be determined (5) None of these

14) The area of a square is 1024 sq.cm. What is the respective ratio between the length and the breadth of a rectangle whose length is twice the side of the square and breadth is 12 cm. less than the side of the square?

- (1) 5:118. (2) 16:7 (3) 14 : 5 (4) 32 : 5 (5) None of these

15) There are two circles of different radii. The area of a square is 196 sq.cm, whose side is half the radius of the larger circle. The radius of the smaller circle is three-seventh that of the larger circle. What is the circumference of the smaller circle?

- (1)  $12\pi$  cm (2)  $16\pi$  cm (3)  $24\pi$  cm (4)  $32\pi$  cm (5) None of these

16) The ratio between the angles of a quadrilateral is 3 : 4 : 6 : 7. Half the second largest angle of the quadrilateral is equal to the smaller angle of a parallelogram. What is the value of adjacent angle of the parallelogram?

- (1)  $136^\circ$  (2)  $126^\circ$  (3)  $94^\circ$  (4)  $96^\circ$  (5) None of these

**Directions (17 – 20) :** Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and

**Give answer (1)** if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.

**Give answer (2)** if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.

**Give answer (3)** if the data in Statement I alone or in Statement II alone are sufficient to answer the question.

**Give answer (4)** if the data in both the Statements I and II are not sufficient to answer the question.

**Give answer (5)** if the data in both the Statements I and II together are necessary to answer the question.

17) What is the circumference of the circle?

- I. The diameter of the circle is 21 cm.  
II. The area of the circle is 346.5 sq.cm.

18) How many pieces of 80 cm. each can be cut from the reel of cloth?

- I. The length of the reel of cloth is 900 cm.  
II. After cutting all the pieces 20 cms. of the cloth from the reel remains.



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

19) What is the perimeter of a semicircle?

I. The radius of the semicircle is equal to half the side of a square.

II. The area of the square is 196 sq.cm.

20) What is the perimeter of the rectangle ?

I. The area of the rectangle is 252 sq. mts.

II. The ratio of length to breadth of the rectangle is 9 : 7 respectively.

21) The ratio between the three angles of a quadrilateral is 1:4:5 respectively. The value of the fourth angle of the quadrilateral is  $60^\circ$ . What is the difference between the value of the largest and the smallest angles of the quadrilateral?

- (1)  $120^\circ$       (2)  $90^\circ$       (3)  $110^\circ$       (4)  $100^\circ$       (5) None of these

22) The cost of building a fence around a circular field is Rs. 7, 700 at the rate of Rs. 14 per foot. What is the area of the circular field?

- (1) 24062.5 sq.ft. , (2) 23864.4 sq.ft. (3) 24644.5 sq.ft. (4) Cannot be determined (5) None of these

23) What would be the cost of building a fence around a square plot with area 462.25 sq. ft. at the rate of Rs. 34 per foot ?

- (1) Rs. 2,924 (2) Rs. 2,682 (3) Rs. 2,846 (4) Cannot be determined (5) None of these

24) The length of a rectangle is twice the diameter of a circle. The circumference of the circle is equal to the area of a square of side 22 cm. What is the breadth of the rectangle if its perimeter is 668 cm ?

- (1) 24 cm (2) 26 cm (3) 52 cm (4) Cannot be determined (5) None of these

25) The circumference of two circles is 88 metres and 220 metres respectively. What is the difference between the area of the larger circle and the smaller circle ?

- (1) 3422 sq. metre (2) 3242 sq. metre (3) 3244 sq. metre (4) 3424 sq. metre (5) None of these

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## **Permutation, Combination & Probability**

1. In how many different ways can the letters of the word 'BAKERY' be arranged?  
(A) 2400      (B) 2005      (C) 720      (D) 5040      (E) None of these
2. In how many different ways can the letters of the word QUOTED be arranged ?  
(1) 720    (2)360    (3) 1440    (4) 320    (5) None of these
3. In how many different ways can the letters of the word RESULT be arranged?  
(1)360    (2)5040    (3) 720    (4) 780    (5) None of these
4. How many different ways the word SIGNATURE be arranged so that the vowels always come together?  
1.720    2.1440    3.2880    4.3600    5.17280
5. In how many different ways can the letters of the word 'CORPORATION' be arranged so that the vowels always come together?  
1.810    2.1440    3.2880    4.50400    5.5760
6. In how many different ways can the letters of the word ATTEND be arranged?  
(1) 60      (2) 120      (3) 240      (4) 80      (5) None of these
7. When all the students in a school are made to stand in rows of 54, 30 such rows are formed. If the students are made to stand in the rows of 45, how many such rows can be formed?  
(1)25      (2)42      (3)36      (4)32      (5)None of these
8. In how many different ways can the letters of the Word CYCLE be arranged?  
(1)120      (2)240      (3)30      (4)80      (5)None of these
9. In how many different ways can the letters of the word 'PEANUT' be arranged?  
(1)720      (2)360      (3)650      (4)700      (5)None of these
10. In how many different ways can the letters of the word 'PRAISE' be arranged ?  
(1) 720    (2)610    (3)360    (4)210    (5) None of these
11. On a shelf there are 4 books on Economics, 3 books on Management and 4 books on Statistics. In how many different ways can the books be arranged so that the books on Economics are kept together?  
(1) 967680      (2) 120960      (3) 5040      (4) 40320      (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

**Directions (12-13) :** Study the following information carefully to answer the questions that follow:

A committee of five members is to be formed out of 4 students, 3 teachers and 2 sports coaches. In how many ways can the committee be formed if

12. The Committee should consist of 2 students, 2 teachers and 1 sports coach?

- (1) 25 (2) 64 (3) 9 (4) 36 (5) None of these

13. any five people can be selected ?

- (1) 126 (2) 45 (3) 20 (4) 24 (5) None of these

**Directions (14 - 16):** Study the given information carefully to answer the questions that follow.

A committee of 6 teachers is to be formed out of 4 science teachers, 5 arts teachers and 3 commerce teachers. In how many different ways can the committee be formed if

14. two teachers from each stream are to be included ?

- (1) 210 (2) 180 (3) 145 (4) 96 (5) None of these

15. no teacher from the commerce stream is to be included ?

- (1) 81 (2) 62 (3) 46 (4) 84 (5) None of these

16. any teacher can be included in the committee ?

- (1) 626 (2) 718 (3) 924 (4) 844 (5) None of these

17. In how many ways can 5 colours be selected out of 9?

- 1) 98 2) 142 3) 72 4) 126 5) None of these

18. A committee of 3 members is to be selected out of 3 men and 2 women. What is the probability that the committee has at least one woman?

- 1)  $\frac{1}{10}$  2)  $\frac{9}{20}$  3)  $\frac{9}{10}$  4)  $\frac{1}{20}$  5) None of these

19. What is the probability of getting a sum 9 from two throws of a dice ?

1.  $\frac{1}{6}$  2.  $\frac{1}{8}$  3.  $\frac{1}{9}$  4.  $\frac{1}{12}$  5. none of these

20. Two dice are thrown simultaneously. What is the probability of getting two numbers whose product is even ?

1.  $\frac{1}{2}$  2.  $\frac{3}{4}$  3.  $\frac{3}{8}$  4.  $\frac{5}{16}$  5. none of these

21. A box contains 5 green, 4 yellow and 3 white marbles. Three marbles are drawn at random. What is the probability that they are not of the same colour ?

1.  $\frac{3}{44}$  2.  $\frac{3}{55}$  3.  $\frac{52}{55}$  4.  $\frac{41}{44}$  5. none of these

22. A bag contains 4 white, 5 red and 6 blue balls. Three balls are drawn at random from the bag. The probability that all of them are red, is :

1.  $\frac{1}{22}$  2.  $\frac{3}{22}$  3.  $\frac{2}{91}$  4.  $\frac{2}{77}$  5. none of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

**Directions : (23 -25);** Study the information and answer the questions that follow.  
A basket contains 3 red balls, 5 blue balls and 2 green balls.

23. If three balls are drawn at random what is the probability that none is blue?  
1)  $\frac{1}{6}$    2)  $\frac{1}{12}$    3)  $\frac{1}{5}$    4)  $\frac{3}{10}$    5) None of these

24. If four balls are drawn at random what is the probability that at least one is green?  
1)  $\frac{2}{3}$    2)  $\frac{1}{2}$    3)  $\frac{1}{3}$    4)  $\frac{2}{5}$    5) None of these

25. If two balls are drawn at random what is the probability that both are red?  
1)  $\frac{1}{5}$    2)  $\frac{3}{10}$    3)  $\frac{3}{5}$    4)  $\frac{1}{15}$    5) None of these

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## Simple & Compound Interest

- 1) At what rate of simple interest will Rs. 4,800 amount to Rs. 6,480 in a span of 7 years?  
(A) 5 (B) 6 (C) 3 (D) 4 (E) None of these
- 2) How much will a sum of Rs. 6,300 amount to in a span of 2 years, at 5 p.c.p.a rate of compound interest (Rounded off to the nearest integer)?  
(A) Rs. 6,946 (B) Rs. 6,876 (C) Rs. 6,521 (D) Rs. 6,790 (E) Rs. 6,492
- 3) What would be the compound interest accrued on an amount of Rs. 9,000 at the rate of 11 p.c.p.a. in two years?  
(1) Rs. 2089.90 (2) Rs. 2140.90 (3) Rs. 5296 (4) Rs. 5280 (5) None of these
- 4) Simple interest accrued on an amount in eight years at the rate of 11 p.c.p.a. is Rs.57,200. What was the principal amount?  
(1) Rs.72000(2) Rs.82000 (3) Rs.75000(4) Rs.65000 (5) None of these
- 5) Mr. Sharma invested an amount of Rs.25000 in fixed deposit at compound interest at the rate of 8 p.c.p.a. for two years. What amount Mr. Sharma will get on maturity?  
(1) Rs.28540(2) Rs.29160 (3) Rs.29240(4) Rs.28240 (5) None of these
- 6) What is the compound interest accrued on an amount of Rs.8500 in two years at the rate of interest 10 p.c.p.a.?  
(1) Rs.1875 (2) Rs.1885 (3) Rs.1775 (4) Rs.1765 (5) None of these
- 7) Amount of simple interest accrued on an amount of Rs.28500 in seven years is Rs.23940. What is the rate of interest p.c.p.a?  
(1) 10.5 (2) 12.5 (3) 11 (4) 12 (5) None of these
- 8) What is compound interest accrued on an amount of Rs.45,000 in two years at the rate of 9 p.c.p.a?  
(1) Rs. 8600 (2) Rs. 8,565.40 (3) Rs. 8,464.50 (4) Rs. 8,540 (5) None of these
- 9) Simple Interest accrued on an amount in 8 years at the rate of 12 p.c.p.a. is Rs. 5,520. What is the principal?  
(1) Rs. 5,750 (2) Rs. 8,500 (3) Rs. 5,650 (4) Rs. 8,250 (5) None of these
- 10) A sum of money fetches Rs.408 as compound interest at the rate of 4 p.c.p.a. at the end of two years, what is the sum?  
(1) Rs.6000 (2) Rs.5000 (3) Rs.4000 (4) Cannot be determined  
(5) None of these
- 11) What will be the difference between the compound interest and simple interest at the rate of 5 p.c.p.a. on an amount of Rs. 4,000 at the end of two years?  
(1) Rs. 10 (2) Rs. 20 (3) Rs. 25 (4) Data inadequate (5) None of these
- 12) The simple interest accrued in 2 years on a principal of Rs. 24,000 is one-eighth of the principal. What is the rate of simple interest p.c.p.a. ?  
(1) 5 (2) 4.5 (3) 6.25 (4) 7.25 (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

13) The simple interest accrued in 4 years on a principal of Rs. 20,000 is one-fifth the principal. What is the rate of simple interest p.c.p.a. ?

- (1) 5 (2) 4.5 (3) 6 (4) 8 (5) None of these

14) The simple interest accrued in 4 years on a principal of Rs. 20,000 is one-tenth the principal. What is the rate of simple interest p. c. p. a.?

- (1) 4 (2) 5 (3) 6 (4) 2 (5) None of these

15) What will be the compound interest accrued on a principal of Rs. 32,500 at the rate of 5 p.c.p.a. after a period of 2 years ?

- (1) Rs. 3332.78 (2) Rs. 3335.35 (3) Rs. 3333.27 (4) Rs. 3331.25 (5) None of these

16) What would be the compound interest obtained on an amount Rs. 4,000 at the rate of 12 p.c.p.a. after 2 years ?

- (1) Rs. 1,019.5 (2) Rs. 1,017.6 (3) Rs. 1,013.4 (4) Rs. 1,016.8 (5) None of these

17) What will be the compound interest accrued on a principal amount of Rs. 12,000 at the rate of 4 p.c.p.a. after a period of 2 years ?

- (1) Rs. 971.5 (2) Rs. 973.4 (3) Rs. 979.2 (4) Rs. 975.9 (5) Rs. 61

18) What would be the compound interest obtained on an amount of Rs. 8,800 at the rate of 16 p.c.p.a. after 2 years ?

- (1) Rs. 3,041.25 (2) Rs. 3,014.28 (3) Rs. 3,044.69 (4) Rs. 3,041.28 (5) None of these

19) The simple interest accrued in 3 years on a principal of Rs. 25,000 is three-twentieth of the principal. What is the rate of simple interest p.c.p.a. ?

- (1) 5 (2) 4 (3) 6 (4) 3 (5) None of these

20) The simple interest accrued in 8 years on a principal of Rs. 20,000 is one-tenth the principal. What is the rate of simple interest p.c.p.a.?

- (1) 1.15 (2) 2.25 (3) 1.25 (4) 2.75 (5) None of these

21) What will be the compound interest obtained on a principal amount of Rs. 5,500 at the rate of 3 p.c.p.a. after 2 years?

- (1) Rs. 343.95 (2) Rs. 324.95 (3) Rs. 354.95 (4) Rs. 314.95 (5) None of these

22) Sonika invested an amount of Rs. 5,800 for 2 years. At what rate of compound interest will she get an amount of Rs. 594.5 at the end of two years?

- (1) 5 p.c.p.a. (2) 4 p.c.p.a. (3) 6 p.c.p.a. (4) 8 p.c.p.a. (5) None of these

23) Arun invested a sum of money at a certain rate of simple interest for a period of four years. Had he invested the same sum for a period of six years the total interest earned by him would have been fifty percent more than the earlier interest amount. What was the rate of interest per cent per annum?

- (1) 4 (2) 8 (3) 5 (4) Cannot be determined (5) None of these

24) The ratio between the speed of a train and a car is 16 : 15 respectively. Also, a bus covered a distance of 480 kms. in 8 hours. The speed of the bus is three-fourth the speed of the train. How much distance will the car cover in 6 hours?

- (1) 450 km (2) 480 km (3) 360 km (4) Cannot be determined (5) None of these



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

- 25) What is the simple interest occurred on a principal of Rs. 5,000 in six years. The rate of the simple interest for the first three years is 5 p.c.p.a. The rate of simple interest for the next three years is 8 p.c.p.a?
- (1) 1950                      (2) 1980                      (3) 1920                      (4) 2000                      (5) none of these

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## Time & Distance

- 1) A train running at the speed of 108 kmph, crosses a 365 metre long platform in 21 seconds. What is the length of the train?  
(1) 260 metres (2) 275 metres (3) 265 metres (4) 285 metres (5) None of these
- 2) A truck covers a distance of 368 km at a certain speed in 8 hours. How much time would a car take at an average speed which is 18 km/hr more than that of the speed of the truck to cover a distance which is 16 km more than that travelled by the truck?  
(1) 7 hrs (2) 5 hrs (3) 6 hrs (4) 8 hrs (5) None of these
- 3) A 240 metre long train crosses a 300 metre long platform in 27 seconds. What is the speed of the train in kmph?  
(1) 66 (2) 60 (3) 76 (4) 64 (5) 72
- 4) A train running at the speed of 60 kmph crosses a 200 metre long platform in 27 seconds. What is the length of the train?  
(1) 250 metre (2) 200 metre (3) 240 metre (4) 450 metre (5) None of these
- 5) A 275 metre long train crosses a platform of equal length in 33 seconds. What is the speed of the train in kmph?  
(1) 66 (2) 60 (3) 64 (4) 72 (5) None of these
- 6) A train running at a speed of 60 kmph crosses a platform double its length in 32.4 seconds. What is length of the platform?  
(1) 180 metres (2) 240 metres (3) 360 metres (4) 90 metres (5) Cannot be determined
- 7) A 160 metre long train running at a speed of 90 kmph crosses a platform in 18 seconds. What is the length of the platform in metres?  
(1) 210 (2) 240 (3) 290 (4) 310 (5) None of these
- 8) Rajeev consistently runs 325 metres every day except on Sundays when he runs 500 metres. How many kilometres will he run in two weeks? (in this question week starts from Monday)  
(1) 5.7 km (2) 2.5 km (3) 3.2 km (4) 4.9 km (5) None of these
- 9) The average speed of a train is  $4\frac{1}{3}$  times the average speed of a tractor. The tractor covers 270 km. in 15 hours. How much distance will the train cover in 12 hours?  
(1) 654 km (2) 896 km (3) 564 km (4) 288 km (5) None of these
- 10) A train covers 430 km in 5 hours. The speed of a bike is half the speed of the train. How much time will the bike take to cover a distance of 301 km?  
(1) 6 hours (2) 7 hours (3) 8 hours (4) 9 hours (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

- 11) The speed of a bus is  $\frac{3}{4}$ <sup>th</sup> the speed of a car. The car covers 320 km in 5 hours. How much time will the bus take to cover 336 km?  
(1) 7 hours (2) 9 hours (3) 12 hours (4) 8 hours (5) None of these
- 12) A truck covers a distance of 420 km in a certain amount of time at the speed of 70 kmph. What is the average speed of the bike that travels a distance of 36 km less than the truck in the same time?  
(1) 62 kmph (2) 64 kmph (3) 66 kmph (4) 68 kmph (5) None of these
- 13) The average speed of a tractor is two-fifth of the average speed of a car. The car covers 450 km in 6 hours. How much distance will the tractor cover in 8 hours?  
(1) 210 km (2) 240 km (3) 420 km (4) 480 km (5) None of these
- 14) The average speed of a car is twice the average speed of a truck. The truck covers 648 kms. in 24 hours. How much distance will the car cover in 15 hours?  
1) 820 kms. (2) 1024 kms. (3) 810 kms. (4) 980 kms. (5) None of these
- 15) Sonal runs 220 metres every day. How many kilometres will she run in 3 weeks?  
(1) 4.42 (2) 5.62 (3) 6.32 (4) 4.62 (5) None of these
- 16) The average speed of a bus is 67 kms per hour. The bus was scheduled to start at 12 pm. It was scheduled to reach a destination 335 kms away from its starting point at 7 pm and a halt was scheduled on the way. For how long was the halt scheduled?  
(1) 3 hours (2) 2 hours (3) 1 hour (4) Cannot be determined (5) None of these
- 17) A 180-metre long train crosses another 270-metre long train running in the opposite direction in 10.8 seconds. If the speed of the first train is 60 kmph., what is the speed of the second train in kmph?  
(1) 80 (2) 90 (3) 150 (4) Cannot be determined (5) None of these
- 18) The respective ratio between the speeds of a car, a train and a bus is 5 : 9 : 4. The average speed of the car, the bus and the train is 72 kmph together. What is the average speed of the car and the train together?  
(1) 82 kmph (2) 78 kmph (3) 84 kmph (4) Cannot be determined (5) None of these
- 19) A man crosses a stationary train in 12 minutes. The same train crosses a man in 54 seconds. What is the respective ratio between the speed of the train and the man?  
(1) 40 : 7 (2) 400 : 3 (3) 40 : 3 (4) Cannot be determined (5) None of these
- 20) Train A crosses a stationary train -B in 50 seconds and a pole in 20 seconds with the same speed. The length of the train -A is 240 metres. What is the length of the stationary Train-B?  
(1) 360 metres (2) 260 metres (3) 300 metres (4) Cannot be determined (5) None of these



# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

21) The respective ratio between the speeds of a car, a jeep and tractor is 3 : 5 : 2. The speed of the jeep is 250 percent of the speed of the tractor which covers 360 km in 12 hours. What is the average speed of car and jeep together ?

(1) 60 km/hr. (2) 75 km/hr. (3) 40 km/hr. (4) Cannot be determined (5) None of these

22. Milind takes as much time in running 15 metres as a car takes in covering 40 metres. What will be the distance covered by Milind during the time the car covers 2 km?

1) 1000 metres 2) 600 metres 3) 650 metres 4) 750 metres 5) None of these

23. A man walks at the speed of 5 km/hr and runs at the speed of 10 km/hr. How much time will the man require to cover the distance of 28 km, if he covers half (first 14 km) his journey walking and half his journey running?

1) 8.4 hrs 2) 6 hrs 3) 5 hrs 4) 4.2 hrs 5) None of these

24. The speed of a car is 1.5 times the speed of a bus. If the car travels at the speed of 60 km/hr. what will be the difference in the time taken by the bus and the time taken by the car to cover 720 km?

1.5 hrs 2.6 hrs 3.4 hrs 4.8 hrs 5. none of these

25) A 320 metre long train crosses a platform thrice its length in 40 seconds. What is the speed of the train in km/hour?

(1) 120.6 (2) 115.2 (3) 108.4 (4) Cannot be determined (5) None of these

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## Time & Work

- 1) A and B together can complete a particular task in 4 days. If A alone can complete the same task in 6 days, how many days will B take to complete the task if he works alone?  
(A) 8 (B) 17 (C) 14 (D) 12 (E) None of these
- 2) A and B together can complete a piece of work in 16 days. B alone can complete the same work in 24 days. In how many days can A alone complete the same work?  
(1) 34 days (2) 50 days (3) 48 days (4) 42 days (5) None of these
- 3) 16 men can complete a piece of work in 7 days. In how many days will 28 men complete the same work?  
(1) 6 days (2) 8 days (3) 3 days (4) 4 days (5) None of these
- 4) 10 men can do a work in 8 days. In how many days will 16 men do the same work?  
(1) 4 days (2) 5 days (3) 6 days (4) 3 days (5) None of these
- 5) 22 men can complete a job in 16 days. In how many days will 32 men complete the job?  
(1) 14 (2) 12 (3) 16 (4) 9 (5) None of these
- 6) 18 women can complete a work in 12 days and 12 men can complete the same work in 9 days. In how many days will 8 men and 8 women complete that work?  
(1) 9 (2) 6 (3) 12 (4) 8 (5) None of these
- 7) 12 Men can complete one-third of the work in 8 days. In how many days can 16 men complete that work?  
(1) 18 (2) 12 (3) 24 (4) Cannot be determined (5) None of these
- 8) Six men can complete a piece of work in 48 hours. In how many hours will 24 men complete the same piece of work?  
(1) 18 (2) 16 (3) 12 (4) 24 (5) None of these
- 9) Six men can complete a piece of work in 35 hours. In how many hours will 15 men complete the same piece of work ?  
(1) 14 (2) 20 (3) 21 (4) 12 (5) None of these
- 10) Rakesh consistently runs 225 metres every day except on Sundays when he runs 800 metres. How many kilometres will he run in two weeks ? (In this question week starts from Monday.)  
(1) 3.7 km (2) 2.5 km (3) 5.2 km (4) 4.3 km (5) None of these
- 11) Six boys can complete a piece of work in 42 hours. In how many hours will 14 boys complete the same piece of work ?  
(1) 18 (2) 16 (3) 12 (4) 14 (5) None of these



12) How many bags are required for filling 1521 kgs of rice if each bag is filled with 117 kgs of rice ?

(1)23 (2)33 (3) 13 (4) 19 (5) None of these

13) A canteen uses 240 litres of water in 3 days. How many litres water will they use in 5 days?

(1)400 (2)440 (3) 410 (4) 420 (5) None of these

14) 12 women alone can complete a piece of work in 5 days, when 3 women and 9 children together can complete the same piece of work in 10 days, in how many days can 36 children complete the same piece of work ?

(1) 10 days (2) 2 days (3) 5 days (4) 8 days (5) None of these

15) A carbon copy centre requires 18 bundles of paper for 5 days. How many bundles will it require for 65 days ?

(1) 233 (2) 236 (3) 238 (4) 234 (5) None of these

16) Ravi consistently runs 350 metres every day except on Tuesdays when he runs 500 metres. How many kilometres will he run in two weeks? (In this question week starts from Monday).

(1) 4.5 km (2) 4.8 km (3) 5.2 km (4) 5.4 km (5) None of these

17) 8 women can complete a piece of work in 15 hours. In how many hours will 12 women complete the same piece of work?

(1)12 (2)6 (3) 8 (4) 10 (5) None of these

18) Six boys can complete a piece of work in 16 hours. In how many hours will 8 boys complete the same piece of work?'

(1) 10 (2) 8 (3) 12 (4) 14 (5) None of these

19) 3 men can complete a piece of work in 6 days. 5 women can complete the same work in 18 days. In how many days will 4 men and 10 women together complete the same work?

(1)3 days (2)5 days (3)2 days (4)4 days (5)None of these

20) 8 men can complete a piece of work in 20 days. 8 women can complete the same work in 32 days. In how many days will 5 men and 8 women together complete the same work?

(1)16 days (2)12 days (3) 14 days (4)10 days (5)None of these





**Directions (21 – 22) :** Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and

**Give answer (1)** if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.

**Give answer (2)** if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.

**Give answer (3)** if the data in Statement I alone or in Statement II alone are sufficient to answer the question.

**Give answer (4)** if the data in both the Statements I and II are not sufficient to answer the question.

**Give answer (5)** if the data in both the Statements I and II together are necessary to answer the question.

21) how many days will five women complete a work ?

- I. Two women, five boys and three men together complete the work in six days.
- II. Eight women complete the same work in twelve days.

22) In how many days will five women complete a work?

- I. Two women, five boys and three men together complete the work in eight days.
- II. Six women complete the same work in sixteen days.

23) 2 men can complete a piece of work in 6 days. 2 women can complete the same piece of work in 9 days, whereas 3 children can complete the same piece of work in 8 days. 3 women and 4 children worked together for 1 day. If only men were to finish the remaining work in 1 day, how many total men would be required?

- (1)4 (2)8 (3)6 (4)Cannot be determined (5)None of these

24) Vikas gets Rs. 350 for every day that he works. If he earns Rs. 9,800 in a month of 31 days, for how many days did he work?

- (1)25 days (2)30 days (3) 24 days (4)28 days (5) None of these

25) A water tank has three taps A, B and C. Tap A, when opened, can fill the water tank alone in 4 hours. Tap B, when opened, can fill the water tank alone in 6 hours and tap C, when opened, can empty the water tank alone in 3 hours. If taps A, B and C are opened simultaneously, how long will it take to fill the tank completely ?

- (1) 10 hours (2) 8 hours (3) 18 hours (4) 12 hours (5) None of these

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## Data Interpretation

**Directions – (Q.1-5) :** Study the following table carefully and answer the questions that follow :

The table represents the total sales value (in lakhs) of five books P,Q,R,S and T, across eight bookstores A, B,C,D,E,F,G and H.

Books	Bookstores							
	A	B	C	D	E	F	G	H
P	560	590	210	670	560	680	420	460
Q	550	560	890	230	820	610	520	230
R	450	290	540	530	500	520	560	410
S	230	240	560	400	430	200	210	480
T	230	400	410	240	200	360	500	470

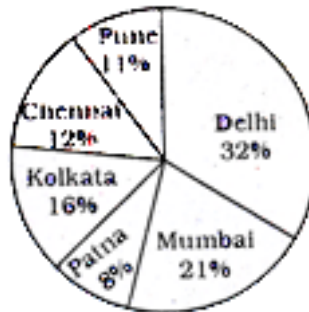
- 1) What is the respective ratio between the total sales values of Book P across all the bookstores and Book S across all the book-stores?  
(1)83 : 55      (2)85 : 33      (3)83 : 53      (4)89 : 55      (5)None of these
- 2) The sale of the book R from Bookstore H is what per cent of the total sale of Book R across all the bookstores (Rounded off to two places after the decimal)?  
(1)21.12      (2)17.19      (3)7.43      (4)3.04      (5)10.79
- 3) What is the average sale (in lakhs) of bookstore E?  
(1)502      (2)504      (3)512      (4)540      (5)None of these
- 4) Book Q constituted approximately what per cent of the total sales of bookstore C?  
(1)34      (2)39      (3)32      (4)23      (5)28
- 5) What is the total sales value (in lakhs) of bookstore D?  
(1)2510      (2)2670      (3)2900      (4)2070      (5)None of these



**Directions (6-10) :** Study the following pie chart carefully to answer the questions;

### PERCENTAGE BREAKUP OF EMPLOYEES OF COMPANY X ACROSS DIFFERENT CITIES

Total No. of Employees of Company X = 1800



6) If 25% of the total number of employees working in Delhi are females, how many employees working in Delhi are males?

- (1)436      (2)324      (3)438      (4)398      (5)432

7) If  $\frac{2}{9}$ th of the total number of employees working in Chennai were transferred to Patna, how many employees would there be in Patna?

- (1)192      (2)168      (3)202      (4)198      (5)None of these

8) Total number of employees working in Kolkata forms approximately what percent of the total number of employees working in Mumbai?

- (1)76      (2)82      (3)69      (4)85      (5)58

9) Fill in the blank space in order to make the sentence correct as per the given information  
Total number of employees working in \_\_\_\_\_ is more than the total number of employees working in Pune and Chennai together.

- (1)Mumbai      (2)Pune and Patna together      (3) Kolkata      (4)Delhi      (5)Patna and Chennai

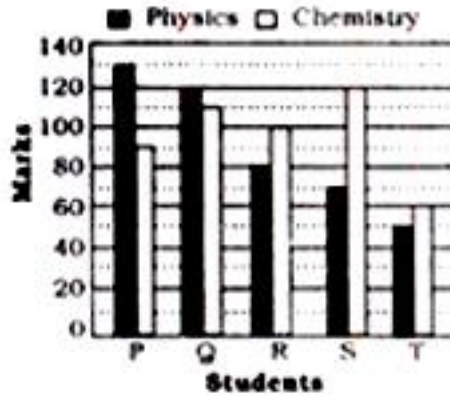
10)What is the respective ratio between the total number of employees working. Patna to the total number of employees working Delhi?

- (1)2 : 3      (2)1 : 5      (3)1 : 4      (4)3 : 4      (5)None of these



**Directions (11-15) :** Study the following bar graph carefully to answer the questions.

**Marks obtained By Five Students in Physics and Chemistry**



- 11.** Marks obtained by S in Chemistry is what per cent of the total marks obtained by all the students in Chemistry?  
(1) 25 (2) 28.5 (3) 35 (4) 31.5 (5) 22
- 12.** If the marks obtained by T in Physics were increased by 14% of the original marks, what would be his new approximate percentage in Physics if the maximum marks in Physics were 140?  
(1) 57 (2) 32 (3) 38 (4) 48 (5) 41
- 13.** Fill in the blank space in order to make the sentence correct as per the given information. Total marks obtained by T in both the subjects together is more than the marks obtained by \_\_\_\_\_  
(1) Q in Chemistry (2) R in Physics (3) S in Chemistry (4) P in Physics (5) R in both the subjects together
- 14.** What is the respective ratio between the total marks obtained by P in Physics and Chemistry together to the marks obtained by T in Physics and Chemistry together?  
(1) 3 : 2 (2) 4 : 3 (3) 5 : 3 (4) 2 : 1 (5) None of these
- 15.** What is the respective ratio between the total marks obtained by Q and S together in Chemistry to the total marks obtained by P and R together in Physics?  
(1) 23 : 25 (2) 23 : 21 (3) 17 : 19 (4) 17 : 23 (5) None of these



**Directions (16 – 20) :** Study the following table carefully to answer these questions.

**Population (In Lakhs) of Five States Over TheYear**

State	A	B	C	D	E
2003	15.6	22.6	18.4	16.6	24.2
2004	16.8	20.8	19.2	18.2	23.8
2005	18.8	24.2	19.8	17.8	25.8
2006	18.4	26.4	20.8	19.8	26.4
2007	20.2	28.2	22.6	22.4	28.2

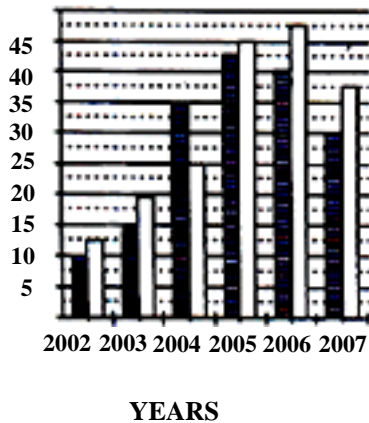
- 16) What is the average population of State B (in lakhs) for all the years together?  
(1) 25.24                      (2) 24.44      (3) 24.24                      (4) 25.44      (5) None of these
- 17) What is the ration between the population of State A in 2003 and the population of State E in 2007 respectively?  
(1) 37 : 22                      (2) 22 : 37                      (3) 47 : 26                      (4) 26 : 47                      (5) None of these
- 18) Population of State E in 2004 is approximately what percent of the population of State D in 2006?  
(1) 85                              (2) 95                      (3) 110                              (4) 130                              (5) 120
- 19) What is the population of all the states together (in lakhs) in 2005?  
(1) 106.4                      (2) 98.4                      (3) 96.8                      (4) 102.8                      (5) None of these
- 20) Population of State E in 2007 is what percent of the total population of all the states together in that year? (rounded off to nearest integer).  
(1) 26                              (2) 25                      (3) 23                              (4) 21                              (5) None of these



**Directions (21-25) :** Study the following graph carefully and answer the questions given below :

**Number of two types of cars sold by a company over the years (Number in thousands).**

- A type car  
□ B type car



**21) Approximately,** what was the average number of B type cars sold by the company in 2002, 2005 and 2007 together?

- (1) 3,47,000 (2) 2,56,000 (3) 30,600 (4) 31,700 (5) 32,300

**22)** The number of A-type cars sold in 2006 was exactly what percentage of number of B type cars sold in 2003?

- (1) 20 (2) 100 (3) 150 (4) 300 (5) 200

**23)** What was the percentage increase in the sale of B type cars from 2004 to 2005?

- (1) 40 (2) 80 (3) 20 (4) 160 (5) None of these

**24)** In which of the following years was the percentage increase/decrease of sale of A-type cars the maximum from the previous year?

- (1) 2004 (2) 2005 (3) 2007 (4) 2003 (5) None of these

**25)** In which of the following years was the difference between the sales of A type and B type cars the maximum?

- (1) 2003 (2) 2007 (3) 2004 (4) 2006 (5) None of these



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

**Directions (26-30) :** Study the information carefully to answer the questions that follow :

There are two companies A and B. Both companies produce all the four different products viz. Computers, Phones, Pen drives, and Compact Discs (CDs). Company A produces a total of 800 products. The respective ratio between the total products produced by Company A and Company B is 4 : 5. 20% of the total products produced by Company B are Pen drives and 40% of them are CDs.  $\frac{2}{5}$  of the remaining products produced by Company B are Phones. The total number of computers produced by both the companies together is 340. 20% of the total products produced by Company A are CDs. Company A produces equal number of Pen drives and Phones.

**26)** What is the respective ratio between the number of Pen drives produced by Company A and the number of Computers produced by Company B?

- (1) 8 : 9                      (2) 9 : 7    (3) 7 : 9                      (4) 4 : 9    (5) 9 : 8

**27)** What is the total number of Phones produced by both the companies together?

- (1) 430                      (2) 420    (3) 390                      (4) 530    (5) None of these

**28)** Number of Phones produced by Company A is what percent of the total number of products produced by Company B?

- (1) 25                      (2) 29    (3) 33                      (4) 37    (5) 27

**29)** What is the average of the number of Pen drives, CDs and Computers produced by Company B?

- (1) 840                      (2) 280    (3) 270                      (4) 860    (5) None of these

**30)** What is the difference between the number of CDs produced by Company B and the number of Computers produced by Company A?

- (1) 200                      (2) 250    (3) 300                      (4) 350    (5) None of these

\*\*\*\*\*



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

## Average

1. What will be the average of the following set of scores (Rounded off to the nearest integer)?  
**62, 76, 42, 84, 21, 47, 28**  
(A)57 (B)54 (C)51 (D)62 (E)66
2. If  $43x + 43y = 4816$ , what is the average of  $x$  and  $y$ ?  
(1)56 (2)112 (3)62 (4)124 (5)None of these
3. Find the average of the following set of scores.  
142, 93, 102, 206, 115, 98  
(1)122 (2)106 (3)138 (4)117 (5)None of these
4. The average of four consecutive odd numbers P, Q, R and S respectively (in increasing order) is 104. What is the sum of P and S?  
(1)204 (2)208 (3)206 (4)212 (5)None of these
5. Average of five numbers is 61. If the average of first and third numbers is 69 and the average of second and fourth numbers is 69, what is the fifth number?  
(1)31 (2)29 (3)25 (4)35 (5)None of these
6. Average weight of 19 men is 74 kgs and the average weight of 38 women is 63 kgs. What is the average weight (rounded off to the nearest integer) of all the men and the women together?  
(1)59 kgs. (2)65 kgs (3)69 kgs. (4)67 kgs. (5)71 kgs.
7. Find the average of the following set of numbers.  
**132, 148, 164, 128, 120, 136**  
(1) 142 (2) 136 (3) 138 (4) 144 (5) None of these
8. Average of five consecutive odd numbers is 95. What is the fourth number in descending order?  
(1) 91 (2) 95 (3) 99 (4) 97 (5) None of these
9. Find the average of following set of numbers.  
**76, 48, 84, 66, 70, 64**  
(1) 72 (2) 66 (3) 68 (4) 64 (5) None of these
10. Find the average of the following set of numbers :  
**148, 88, 184, 166, 96, 122**  
(1)146 (2)142 (3)136 (4)132 (5)None of these
11. What is the average of the following set of numbers?  
**38, 92, 45, 25, 60**  
(1)48 (2)54 (3)56 (4)50 (5)None of these
12. The body weight of seven boys is recorded as 67 kg., 45 kg., 87 kg., 65 kg., 86 kg., 54 kg. and 58 kg. What is the average body weight of all seven boys?  
(1)68 kg. (2) 66 kg. (3) 64 kg. (4) 62 kg. (5) None of these
13. The body weight of six boys is recorded as 73 kgs., 49 kgs., 76 kgs., 89 kgs., 58 kgs. and 39 kgs. What is the average body weight of all six boys ?  
(1) 68 kgs. (2) 66 kgs. (3) 64 kgs. (4) 62 kgs. (5) None of these





# SHAKTHII ACADEMY

## Increasing Confidence ; Reaching Goals

14. The body weight of six men is recorded as 67 kg., 89 kg., 98 kg., 83 kg., 52 kg., and 79 kg. What is the average body weight of all the six men ?

- (1) 86 kg. (2) 72 kg. (3) 82 kg. (4) 78 kg. (5) None of these

15. What will be the average of the following set of scores ?

**69, 89, 34, 76, 54, 68, 28, 46**

- (1) 53 (2) 55 (3) 57 (4) 56 (5) None of these

16. The average of five numbers is 50.8. The average of the first and the second numbers is 29. The average of the fourth and the fifth numbers is 66.5. What is the third number ?

- (1) 65 (2) 73 (3) 61 (4) 77 (5) None of these

17. Find the average of the following set of scores : 42, 63, 29, 36, 98, 15, 23, 74

- (1) 48.3 (2) 43.8 (3) 45.7 (4) 47.5 (5) None of these

18. Find the average of the following set of scores : 556, 224, 778, 442, 336, 112

- (1) 405 (2) 408 (3) 402 (4) 406 (5) None of these

19. The average of five numbers is 56. If the average of first four numbers is 54, what is the value of the fifth number?

- (1) 68 (2) 72 (3) 56 (4) 64 (5) None of these

20. The marks of six boys in a group are 48, 59, 87, 37, 78 and 57. What are the average marks all six boys?.

- (1) 62 (2) 64 (3) 61 (4) 63 (5) None of these

21. The height of four boys is recorded as 142cms., 156cms, 162cms and 178cms. What is the average height of all four boys?

- (1) 160 cms. (2) 158.5 cms. (3) 159.5 cms. (4) 162 cms. (5) None of these

22. The average of five numbers is 371.8. The average of the first and second number is 256.5 and the average of the fourth and fifth number is 508. Which of the following is the third number?

- (1) 360 (2) 310 (3) 430 (4) 380 (5) 330

23. What will be the average of the following set of scores?

**313, 252, 161, 727, 525, 818**

- (1) 463 (2) 466 (3) 456 (4) 476 (5) 446

24. The total marks obtained by a student in Physics, Chemistry and Mathematics together is 120 more than the marks obtained by him in Chemistry. What are the average marks obtained by him in Physics and Mathematics together?

- (1) 60 (2) 120 (3) 240 (4) 80 (5) None of these

25. The average age of 80 boys in a class is 15 years. The average age of a group of 15 boys in the class is 16 years and the average age of another 25 boys in the class is 14 years. What is the average age of the remaining boys in the class?

- (1) 15.25 years (2) 14 years (3) 14.75 years (4) Cannot be determined (5) None of these



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

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Answer Keys:

## PERCENTAGE, PROFIT AND LOSS

1.1 2.2 3.1 4.2 5.1 6.1 7.3 8.4 9.2 10.5 11.1 12.2 13.1  
14.5 15.4 16.3 17.4 18.4 19.5 20.2 21.2 22.3 23.4 24.1 25.4

## RATIO & PROPORTION

1.4 2.5 3.2 4.1 5.5 6.1 7.4 8.4 9.1 10.1 11.1 12.4 13.1  
14.5 15.1 16.3 17.5 18.4 19.2 20.4 21.3 22.1 23.5 24.4 25.5

## AGES

1.3 2.4 3.2 4.2 5.1 6.1 7.2 8.1 9.2 10.2 11.4 12.1 13.5  
14.5 15.1 16.3 17.4 18.5 19.5 20.5 21.5 22.2 23.3 24.4 25.4 26.3

## NUMERICAL ABILITY

1.2 2.4 3.2 4.5 5.5 6.3 7.1 8.4 9.5 10.3 11.1 12.4 13.1  
14.1 15.5 16.5 17.1 18.1 19.2 20.5 21.3 22.1 23.1 24.1 25.3

## APPROXIMATE CALCULATION

1.1 2.2 3.5 4.3 5.1 6.5 7.5 8.1 9.1 10.4 11.3 12.5 13.4  
14.5 15.5 16.5 17.5 18.3 19.4 20.3 21.4 22.5 23.1 24.3 25.3 26.3  
27.4 28.4 29.2 30.5



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

## NUMBER SERIES

1.4 2.2 3.1 4.1 5.4 6.5 7.2 8.3 9.1 10.4 11.4 12.3 13.5  
14.5 15.1 16.2 17.3 18.5 19.5 20.5 21.4 22.3 23.2 24.5 25.1 26.1  
27.5 28.3 29.1 30.2

## NUMBERS

1.2 2.2 3.5 4.3 5.1 6.5 7.3 8.4 9.3 10.4 11.1 12.2 13.3  
14.2 15.5 16.2 17.2 18.3 19.3 20.3 21.5 22.1 23.1 24.4 25.3

## SIMPLE EQUATION

1.4 2.2 3.2 4.2 5.2 6.1 7.1 8.3 9.3 10.1 11.5 12.3 13.4  
14.1 15.1 16.3 17.3 18.2 19.3 20.2 21.3 22.5 23.4 24.5 25.1

## QUADRATIC EQUATION

1.5 2.1 3.3 4.2 5.4 6.3 7.5 8.4 9.5 10.5 11.1 12.2 13.5  
14.5 15.1 16.3 17.3 18.3 19.4 20.1 21.3 22.1 23.2 24.4 25.2 26.5  
27.1 28.5 29.3 30.2

## MENSURATION

1.2 2.4 3.4 4.4 5.3 6.4 7.5 8.4 9.4 10.2 11.4 12.4 13.2  
14.5 15.3 16.2 17.3 18.1 19.5 20.5 21.1 22.1 23.1 24.2 25.5

## PERMUTATION, COMBINATION & PROBABILITY

1.3 2.1 3.3 4.5 5.4 6.5 7.3 8.5 9.1 10.1 11.1 12.4  
13.1 14.2 15.4 16.3 17.4 18.3 19.3 20.2 21.4 22.3 23.2 24.1 25.4

## SIMPLE & COMPOUND INTEREST

1.1 2.1 3.5 4.4 5.2 6.5 7.4 8.3 9.1 10.2 11.1 12.3 13.1  
14.5 15.4 16.2 17.3 18.4 19.1 20.3 21.5 22.1 23.1 24.1 25.1



# SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

## TIME & DISTANCE

1.3 2.3 3.5 4.1 5.2 6.3 7.3 8.4 9.4 10.2 11.1 12.2 13.2  
14.3 15.4 16.2 17.2 18.3 19.3 20.1 21.1 22.4 23.4 24.2 25.2

## TIME & WORK

1.4 2.3 3.4 4.2 5.5 6.1 7.1 8.3 9.1 10.4 11.1 12.3 13.1  
14.3 15.4 16.3 17.4 18.3 19.1 20.1 21.2 22.2 23.2 24.4 25.4

## DATA INTERPRETATION

1.1 2.5 3.1 4.1 5.4 6.5 7.1 8.1 9.4 10.3 11.1 12.5 13.2  
14.4 15.2 16.2 17.4 18.5 19.1 20.3 21.4 22.5 23.2 24.1 25.3 26.5  
27.1 28.5 29.2 30.3

## AVERAGE

1.3 2.1 3.5 4.2 5.2 6.4 7.3 8.5 9.3 10.5 11.5 12.2 13.3  
14.4 15.5 16.5 17.4 18.2 19.4 20.3 21.3 22.5 23.2 24.1 25.1