**Number System**

**Divisibility Problems**

1. What are the values for X and Y in 72X23Y for it to be perfectly divisible by 88?

A) X=1 & Y=5 B) X=7 & Y=5

C) X=3 & Y=2 D) X=7 & Y=2

2. The number 2594\* is completely divisible by 6. The smallest value of \* can be?

A) 0 B) 2 C) 4 D) 6

3. Which of the following number is divisible by 3, 7 and 9?

A) 1393 B) 1396 C) 1380 D) 1386

4. 4522 is not divisible by?

A) 7 B) 17 C) 19 D) 21

5. If an integer “k” is divisible by 2, 5 and 13, what is the next largest number that is divisible by all the three given numbers?

A) 2k B) 2k+13 C) 2k+65 D) k+13

6. A number when divided by the sum of 625 and 515 gives a quotient that is 5 times the difference between 625 and 515 and remainder as zero. What is the number?

A) 632500 B) 627000

C) 617500 D) 642000

7.If a positive integer n is divided by 5 then the remainder is 3. Which of the given numbers

will give remainder zero, when divided by 5?

A) n+ 3 B) n-2

C) n + 2 D) n + 1

8.A three digit number 7a2 is added to another 3 digit number 685 which results in a 4 digit number 13b7. This 4 digit number is divisible by 11. What is the value of a + b?

A) 8 B) 9 C) 10 D) 11

9. Which is the largest possible two digit number which divides 32472?

A) 44 B) 66 C) 88 D) 99

10. What are the largest 4-digit and the smallest 3-digit numbers divisible by 6, 15, 21 and 24?

A) 9235, 420 B) 9980, 840

C) 9240, 840 D) 9999, 999

11. 2185 is a multiple of?

A) 17 B) 21 C) 23 D) 25

12. The number 456Z85 is completely divisible by 3. Smallest whole digit number in place of Z can be?

A) 0 B) 1 C) 2 D) 3

13.Find the largest two digit number that divides 673 and 865, leaving remainder 1 in each?

A) 91 B) 93 C) 96 D) 98

14. What is the smallest square number which is divisible by 2, 4, 5, 6 and 9??

A) 200 B) 90 C) 180 D) 900

15. Which of the given numbers is exactly divisible by 11?

A) 235641 B) 245642

C) 315624 D) 415624

16. Sum of the digits of a 3 digit number is subtracted from the number. The resulting number is divisible by

A) 6 B) 9 C) Both 6 & 9 D) 3, 6 & 9

17. What should be the highest value that must be assigned to # so that the number 10114#5 is exactly divisible by 7?

A) 5 B) 6 C) 7 D) 8

18. What will be the value of A and B:

A8 + 96 = 1AB

A) A=2, B=4 B) A=4, B=2

C) Inconsistent data D) A=4, B=3

19. What is the least amount that a person can have such that when he distributes it into groups of Rs.16 or Rs.20 or Rs.25, he is always

left with Rs.4 ?

A) Rs.1796 B) Rs.1804

C) Rs.2596 D) Rs.3604

20. Rahul purchased 7 Dvd’s each of which costs Rs.17, he gave a 500 Rupee note to the shopkeeper. The amount returned to him is divisible by

A) 3 B) 7 C) 9 D) 11

21. X and y are 2 numbers which when divided by 6 leave a reminder of 4 and 5 respectively. What will be the remainder when y + x is divided by 6?

A) 6 B) 9 C) 1 D) None of these

22. What is the least number by which 16800 must be divided to get a number which is a perfect square?

A) 42 B) 24 C) 21 D) 40

**Unit Digit**

23. What is the unit digit of 2720?

A) 2 B) 4 C) 5 D) 1

24. What is the unit digit of 334?

A) 7 B) 9 C) 3 D) 1

25. What is the unit digit of the sum?

1 + 22 + 33 + 44 + 55 + 66

A) 0 B) 4 C) 7 D) 9

26. What will be at the unit’s place of

191 \* 191 \* 252 – 211 \* 566 \* 114?

A) 8 B) 6 C) 4 D) 2

**Remainder Theorem**

27. When 235 is divided by 5 the remainder is

A) 2 B) 3 C) 4D) 0

28. A number X when divided by 13 leaves the remainder 12. What is the remainder when X13 is divided by 13?

A) 12 B) 0 C) 1 D) 10

**Highest Power**

29.What is the highest power of 5 contained in 200!?

A) 40 B) 49 C) 50 D) 57

30. What is the highest power of 2 in the following expression 1800 x 25 x 48 x 212 x 4-2?

A) 19 B) 21 C) 20 D) 18 E) 17

**Basic Number properties**

31. Number ‘1’ is a ?

A) Prime number B) composite number

C) Positive integer D) Both A & C

32. Product of two odd numbers is

A) Always odd B) Always even

C) Sometimes odd and sometimes even

D) Divisible by 6

33. What is the sum of two consecutive numbers, the difference of whose squares is 19?

A) 8 B) 10 C) 18 D) 19

34. If x is a positive number and y=x2, then which of the given statements are true?

A) y is always more than x

B) x is always more than y

C) x is always equal to y

D) None of the above

35. A number becomes a perfect square when we subtract 1 from it. Which of the given options cannot be the last digit of that number?

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

36. Identify the set of all the positive integers

A) 0,1,2,3 B) 1,2,3,4

C) 2,4,6,8 D) 2, 5,7,11

37. The product of a number and its multiplicative inverse is?

A) -1 B) 1 C) 0 D) None of These

38. If the difference of two numbers is 8 and the difference of their squares is 160, then the numbers are?

A) 18, 10 B) 8, 16 C) 6, 14 D) None of these

39. Which number should be multiplied by 43 so that it will have 3 prime factors?

A) 2 B) 3 C) 6 D) 8

40. Give the greatest pair of twin primes which are below 100?

A) 71, 73 B) 93, 95 C) 97, 99 D) 87, 89

41. What is the least number which should be added to 1330 to make it a perfect square?

A) 1 B) 56 C) 41 D) 39

**LCM & HCF**

42. If the sum of two numbers is 27 and their HCF and LCM are 3 and 60 respectively, then the sum of the reciprocal of the two numbers is:

A) 1/10 B) 1/5 C) 3/10 D) 3/20

43. If the LCM and HCF of two numbers are 78 and 13 respectively, the product of two numbers can be expressed as

A) 2 × 3 × 13 × 11 B) 2 × 3 × 13 × 12

C) 2 × 3 × 13 × 13 D) 2 × 3 × 13 × 14

44. If LCM and HCF of two numbers are 234 and 13 respectively, then the smallest factor of the product of the two numbers is:

A) 2 B) 3 C) 4 D) 5

45. A light blinks after every 3 sec, another light blinks after every 5 sec and the third one blinks after every 16 sec. How many times do they blink together in half an hour?

A) 7 times B) 4 times

C) 240 times D) 8 times

46. The reciprocal of the HCF and LCM of two numbers are 1/12 and 1/312 respectively. If one of the numbers is 24, find the other number

A) 126 B) 136 C) 146 D) 156

47. The product of two numbers is 2208.

LCM of the numbers is 552. What is their HCF?

A) 12 B) 4 C) 24 D) 15

48. One gear of pulley rotates at a speed of 3 revolutions per second; another gear rotates at 5 revolutions per second. If both start together, after how many seconds will they be together again?

A) 3 B) 5 C) 15 D) 20

49. The LCM and HCF of two numbers are 2970 and 30 respectively. Prime factors of the product of two numbers are:

A) 2, 3, 5, 11 B) 2, 3, 7, 11

C) 2, 4, 5, 11 D) 2, 3, 7, 13

50. The tremors of the earthquake were felt at intervals of 15 seconds. The first tremor was felt at 08:54:57 am and the last tremor was felt at 10:45:12 am. How many times were the tremors felt?

A) 484 B) 494 C) 441 D) 525

51. The product of 2 co-primes is 253. What is the LCM of these numbers?

A) 1 B) 253 C) Equal to HCF D) 0

52. What is the difference between the LCM and HCF of the numbers 20, 30 and 40?

A) 100 B) 120 C) 110 D) 130

53. Sudhir goes to the market once every 64 days and Sushil goes to the same market once every 72days. They met each other one day. How many days later will they meet each other again?

A) 16 B) 64 C) 240 D) 576

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. D) | 2. C) | 3. D) | 4. D) | 5. A) | 6. B) |
| 7. C) | 8. C) | 9. D) | 10.C) | 11.C) | 12.C) |
| 13.C) | 14.D) | 15.D) | 16.C) | 17.B) | 18.A) |
| 19.D) | 20.A) | 21.D) | 22.A) | 23.D) | 24.B) |
| 25.D) | 26.A) | 27.B) | 28.A) | 29.B) | 30.A) |
| 31.C) | 32.A) | 33.D) | 34.A) | 35.B) | 36.B) |
| 37.B) | 38.C) | 39.C) | 40.A) | 41.D) | 42.D) |
| 43.C) | 44.A) | 45.D) | 46.D) | 47.B) | 48.C) |
| 49.A) | 50.C) | 51.B) | 52.C) | 53.D) |  |

**Ages, Partnership, Allegations and Mixtures**

1. A restaurant prepares 22 litres of a mixture that contains 25% of orange essence and the remaining quantity as water. If 3 litres of water is mixed in this mixture, what will be the percentage of orange essence in the new mixture?

A) 34% B) 4% C) 12% D) 22%

2. A started a business with Rs.270000 and was joined by B three months afterwards. How much money did B invest if the profit share of A at The end of the year was three-fifth of the total profit?

A) Rs. 280000 B) Rs. 100000

C) Rs. 270000 D) Rs. 240000

3. Parul is one-fifth the age her mother was 15 years ago and parul’s brother is three-fifth the age his mother was 10 years ago. If the sum of Parul and her brother’s ages is 31, then how old is Parul’s mother?

A) 50 B) 40 C) 35 D) 60

4. If the sum of 4 times a number A and three times a number B is equal to the sum of number B and seven times the number A, then what is the value of A:B?

A) 2:3 B) 3:2 C) 4:3 D) 3:4

5. A chemical mixture requires 2 chemicals, A and B in the proportion 3:2. The mixture is to be prepared ina tank of capacity 50 litres. Pipe A can fill the tank with chemical A in 15 min and pipe B can fill the tank with chemical B in 30 min. If both the pipes are opened when the tank is empty, then for how long should the pipes A and B run to obtain the mixture? (In minutes)

A) (10, 10) B) (9, 9) C) (12, 12)

D) (9, 12) E) (12, 9)

6.A company makes a mixture which contains 2% alcohol. If 10 litres of alcohol is added to the mixture, then the concentration increases

to 5%. What is the approx. quantity of the mixture?

A) 316 L B) 315 L C) 310 L D) 300 L

7.A child’s age is two-thirds the age of his elder brother. After 5 years, he will be four-fifth of the elder brother’s age. How old is the child?

A) 2.5 Years B) 5 Years C) 7 Years D) 7.5 Years

8. Ram is five years elder to his youngest sibling Shreya. Shreya is two years younger than her brother Ritesh. Ritesh is 13 years old and is Ram’s brother. How old will Ram be in two years from now?

A) 16 B) 17 C) 20 D) 15 E) 18

9. How many litres of a 90% solution of concentrated acid needs to be mixed with a 75% solution of concentrated acid to get a 30 L solution of 78% concentrated acid?

A) 24 L B) 22.5 L C) 6 L D) 17.5 L

10. In a mixture of milk and water the proportion of milk by weight was 70%. If in a 250gm mixture 100 gm water was added. What would be the percentage of water?

A) 50% B) 40% C) 60% D) 70%

11. Swati when get married to Jayanta her age was 3/4th of her husband’s age. After 12 years her age became 5/6th of her husband's age. Then what's the age of Swati when she got married?

A) 15 years B) 17 years C) 18 years

D) None of these

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. C) | 2. C) | 3. C) | 4. C) | 5. C) | 6. A) |
| 7. A) | 8. A) | 9. B) | 10.B) | 11.D) |

**Simple and Compound Interest**

1. A certain sum of money amounts to Rs.2500 in a span of 5 years and Rs.3000 in a span of 7 years at simple interest. The sum is

A) Rs.1000 B) Rs.1200

C) Rs.1050 D) Rs.1250

2. What sum of money will accumulate to Rs.5300 at 8% simple interest in 9 months?

A) Rs.5000 B) Rs.5400

C) Rs.4500 D) Rs.4000

3. A bank advertises that you can double the money by investing it with them for 8 years. What is the interest rate offered by them?

A) 12.5 % B) 8.5 % C) 10 % D) 14 %

4. Simple interest on an amount at 4% per annum for 13 months is more than the simple interest on the same sum for 8 months at 6% per annum by Rs.40. What is the principal amount?

A) Rs. 3600 B) Rs.12000

C) Rs. 4800 D) Rs.24000

5. a, b and c are such that b is the simple interest on a and c is the simple interest on b for the same period and same rate of interest.

The relation between these three is?

A) a2 = bc B) c2 = ab C) b2 = ac D) a=b=c

6. The principal Rs. A, borrowed at A% per annum simple interest, for A months will amount to:

A) A (1+A2/12) B) A ((1+A2) / 1200)

C) (A + A3) / 1200 D) A (1+A2 / 1200)

7. The simple interest on a certain sum for 3 years at 4% per annum is Rs.48. The principal is

A) Rs.550 B) Rs.500 C) Rs.450 D) Rs. 400

8. Given that the interest is only earned on principal, if an investment of Rs.1000 amounts to Rs.1440 in two years, then what is the rate of interest earned? (Compound Interest)

A) 20 % B) 21 % C) 11 % D) 44 %

9. Sangeeta invested Rs.20000 at 8% per annum. If the interest is compounded half yearly, Then total interest earned by Sangeeta at the end of the year is?

A) Rs.1632 B) Rs.1600

C) Rs.1800 D) Rs.1475

10.The difference between the compound interest and the simple interest on a certain sum at 12% p.a. for two years is Rs.90. What will be the total value of the sum at the end of 3 years?

A) Rs.9000 B) Rs.6750

C) Rs.8780.8 D) Rs. 8530.8

**Percentages, Profit & Loss**

11. A show room offers a 10% discount on a microwave, whose marked price is Rs.8000, and also gives a blender worth Rs.1200 as a complimentary gift with it. Even then, the showroom earns a profit of 20%. The cost price per microwave is?

A) Rs.7200 B) Rs.6000

C) Rs.5000 D) Rs.4000

12. A machine worth Rs.180000 depreciates at the rate of 18% of the value of the machine per annum. The value of the machine in 18 months from now will be:

A) Rs.231516 B) Rs.134316

C) Rs.150000 D) Rs.100000

13. A man bought 400 meters of cloth for Rs.40000 and sold it at a rate of Rs.200 per one and a half meter. What was his percentage profit or loss?

A) 36% loss B) 25% profit

C) 33% profit D) 27% loss

14. Zegna car was in rage two years back and it cost Rs.560000 then. Now, however, with many new hi-tech cars coming into the market, the price of the car has dipped to Rs.400000. Find the decrease in price of the car as a percentage of the old price?

A) 28% B) 28.57% C) 40% D) 71.42%

15.A television manufacturing company has decided to increase the sale to beat the economic slowdown. It decides to reduce the price of television sets by 25% as a result of which the sales increased by 20%. What is the effect on the total revenue of the company?

A) Decreased by 20% B) Increased by 20%

C) Increased by 10% D) Decreased by 10%

16. A supplier supplies cartridges to a newspaper publishing house. He earns a profit of 20% by selling cartridges for Rs.540. Find the cost price of the cartridges?

A) Rs. 500 B) Rs. 480

C) Rs. 450 D) Rs. 400

17. Which is better: a successive discount of

40% and 30% or a discount of flat 70%?

A) Both are equivalent B) 40% and 30%

C) 70% D) None of the above

18. Jaya bought a car worth Rs.350000 four years ago. If the value of the car depreciates over time at a fixed rate of 10% per annum, then what will be the present worth of the car?

A) Rs.229635 B) Rs.250000

C) Rs.230000 D) Rs.255150

19. Nitish sold his watch and sunglasses at a loss of 4% and gain of 4% respectively for Rs.2600 to Kamal, Kamal sold the same sunglasses and watch at a loss of 4% and gain of 4% respectively for Rs.2700. The price of watch and sunglasses to Nitish were?

A) Rs.1960, Rs.700 B) Rs.2000, Rs.1000

C) Rs.1900, Rs.700 D) Rs.800, Rs.2000

20. In a town of 200000 citizens, if the population increases at the rate of 4% per annum, then what will be the population of the town in 2 years from now?

A) 216000 B) 355555

C) 210000 D) 216320

21. Three successive discounts of 6%, 10%, 15% are equal to a single discount of

A) 25% B) 28.90% C) 31% D) 28.09%

22. Amit bought 10 cycles for Rs.1750 each. He sold four cycles for Rs.8400, three for Rs.1900 each. At what price should he sell the remaining cycles so as to earn an average profit of Rs.320 per cycle?

A) Rs. 1900 B) Rs. 2000

C) Rs. 1800 D) Rs. 2200

23. A 20% reduction in the unit cost of an article enables one to buy 25 items more for Rs.1000. What is the original unit cost of the item?

A) Rs.12 B) Rs.8 C) Rs. 10 D) Rs.15

24. A flower seller purchases roses At Rs. 96 a dozen and sells them at Rs.10 per flower. What is the profit percent of the flower seller?

A) 0.4 B) 0.2 C) 0.25 D) 0.15

25. A trend was observed in the growth of population in Saya islands. The population tripled every month. Initially, the population of Saya Islands was 100. What would be its population after 4 months?

A) 100 x 43 B) 100 x 34

C) 100 x 3 x 4 D) (1003)4

26. A salesman has the liberty to sell a hair dryer in his store at a price between Rs.300 and Rs.700. Profit earned by selling the hair dryer for Rs. 650 is twice the loss incurred when it is sold for Rs.350. What is the cost price of the hair dryer?

A) Rs.550 B) Rs.450 C) Rs.350 D) Rs.150

27. Manu had invested 30% of his capital in petro bonds and rest in a life insurance plan. He has invested Rs.34000 more in life insurance plan than in petro bonds. How much is the total investment made by Manu?

A) Rs.25500 B) Rs.59500

C) Rs.85000 D) Rs.95000

28. The manufacturer of a certain item can sell all he can produce at the selling price of Rs.60 each. It costs him Rs.40 in materials and labour to produce each item and he has overhead expenses of Rs.3000 per week in order to operate the plant. The number of units he should produce and sell in order to make a profit of at least Rs.1000 per week is?

A) 200 B) 250 C) 300 D) 400

29. Riya sold her car for Rs.50000 less than what she bought it for and lost 8%. At what price should she have sold the car, if she wanted to gain as much as she lost in the first transaction?

A) Rs.625000 B) Rs.650000

C) Rs. 675000 D) Rs.637500

30. Every year before the festival season, a shopkeeper increases the price of the products by 35% and then introduces two successive discounts of 10% and 15% respectively. What is his percentage loss or gain?

A) 3.27% loss B) 3.27% gain

C) 8.875% loss D) 8.875% gain

31.A shopkeeper offers Buy 1, Get 1 Free offer on a t-shirt marked at Rs.2400. If after a sale, the shopkeeper earns a profit of 33.33%, then what is the actual price of the t-shirt?

A) Rs.900 B) Rs.800

C) Rs.1200 D) Rs.1500

32. Shobhit bought 300 litres of milk at Rs.19 per litre. He added 200 litres of water to it and sold 400 litres of this milk at Rs.20 per litre. To the rest, he added 10 litres more water and then sold it for Rs.15 per litre. If he used mineral water that costs Rs.10 per litre, then the total money earned by Shobhit is:

A) Rs.4000 B) Rs.4150

C) Rs.1800 D) Rs.1850

33. A vendor purchases binder clips at 12 for Rs. 60. How many clips should he sell for Rs. 60 to earn a profit of 20%?

A) 5 B) 8 C) 6 D) 10

34. Atul bought a machine for Rs.450000 and sold it to irfan at a profit. Irfan later sold the machine to Danish at a loss of 10% for Rs. 495000. The profit earned by Atul is:

A) 23% B) 21% C) 25% D) 22.22%

35. The population of a town three years ago was ‘b’ and the population of the town three years from now will be ‘c’. What is the current population of the town, if it grows at the same rate?

A) √bc B) b√c C) c√b D) b (√b/√c) E) (√b/√c)

36. A book store offers a 10% discount on all the books sold plus an additional discount of 5% on the total bill, if the total bill after the initial discount is more than or equal to Rs.1000. Dilshan bought 3 books worth Rs.450, Rs.520 and Rs.250 respectively. How much money was Dilshan able to save as a result of the various discounts offered by the store?

A) Rs.102 B) Rs.176.9

C) Rs.61 D) Rs.183

37. When the price of a pair of shoes is decreased by 10%, the number of pairs sold increased by 20%. What is the net effect on sales?

A) 8% decrease B) 10% decrease

C) 10% increase D) 8% increase

38. In a mall, 20% area is occupied by eateries, 60% area is open. In the remaining area of 1600 sq meter, there are different showrooms. What is the total area occupied by the mall?

A) 10000 sq m B) 5000 sq m

C) 8000 sq m D) 4800 sq m

39. A store has a banner of 25% off on MRP of all branded items. Sheetal goes into the store and buys a belt worth Rs.75, a shirt of Rs.1999 and a shawl of Rs.2900. How much amount will she have to pay?

A) Rs.1243.50 B) Rs.1240

C) Rs.3700 D) Rs.3730.50

40. In a class of 65 students each student got sweets that are 20% of the total number of students. How many sweets are there?

A) 635 B) 845 C) 955 D) 1300

41. Kaushik buys an article with 25% discount on its marked price. He makes a profit of 10% by selling it at Rs*.*660. The marked price is :

A) Rs.600 B) Rs.685 C) Rs.700 D) Rs.800

42. Deepak sells 50 shirts at the cost price of 60 shirts. His gain percent is:

A) 0.15 B) 0.1 C) 0.25 D) 0.2

43. Population of a village is eight thousand. If 6% men and 10% women are added, population becomes 8600, then the number of men in the village was

A) 4800 B) 5000 C) 5060 D) 6000

44. A shopkeeper marks an article at a price which gives a profit of 25%. After allowing certain discount, the profit reduces to 12 ½ %. The discount percent is

A) 12% B) 12.5% C) 10% D) 20%

45. Price of book increases 15% successively 2-times, what is the new price of the book more compared to that of the old price:

A) 32.25% B) 23.34% C) 36% D) 39%

46. Traders A and B buy two goods for Rs.1000 and Rs.2000 respectively. Trader A marks his goods up by x%, while trader B marks his goods up by 2x% and offers a discount of x%. If both make the same non-zero profit, find x?

A) 25 % B) 12.5 % C) 37.5 % D) 40 %

47. A numerator of a fraction is increased by 400% and denominator is increased by 500%, the result fraction is 15/22. What is the fraction?

A) 9/11 B) 5/11 C) 7/11 D) 11/13

48. Micro-sims private limited produces 1200 phones every day. Out of these 7/3 % are faulty and 13/3 % are defective in packaging, Then how many non-faulty and non-defective packaged phones every day?

A) 80 B) 120 C) 1080 D) 1120

49. Maithli purchased a walkman from her friend. She then sold it for Rs.90. Had it been sold for Rs.105, the gain would have been 1/4th of the former loss. What is the cost of the walkman?

A) Rs.82 B) Rs.102 C) Rs.114 D) Rs.126

50. A woman sold 15 bed sheets for Rs.15000, hence gaining the cost price of 5 bed sheets.

The cost per sheet is:

A) Rs. 960 B) Rs. 775

C) Rs. 1000 D) Rs. 750

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. D) | 2. A) | 3. A) | 4. B ) | 5. C) | 6. C) |
| 7. D) | 8. A) | 9. A) | 10.C) | 11.C) | 12.B) |
| 13.C) | 14.B) | 15.D) | 16.C) | 17.B) | 18.A) |
| 19.A) | 20.D) | 21.D) | 22.D) | 23.C) | 24.C) |
| 25.B) | 26.B) | 27.C) | 28.A) | 29.C) | 30.B) |
| 31.A) | 32.D) | 33.D) | 34.D) | 35.A) | 36.B) |
| 37.D) | 38.C) | 39.D) | 40.B) | 41.A) | 42.D) |
| 43.B) | 44.C) | 45.A) | 46.A) | 47.A) | 48.D) |
| 49.B) | 50.D) |

**Time, Speed and Distance, Problems on Trains, Boats and Streams**

1. An aeroplane flies along the sides of an equilateral triangle with speed of 300 km/hr, 200 km/hr, and 240 km/hr. The average speed of the plane while flying around the triangle is?

A) 250 km/hr B) 275 km/hr

C) 200 km/hr D) 240 km/hr

2. Akhil travels first half of the distance at 50m/s and second half at 75m/s. The total distance travelled is 3km. find his average speed of travel for the entire journey

A) 62.5 m/s B) 60 m/s C) 55 m/s D) 65 m/s

3. A scuba diver descends at a rate of 40 feet per minute. A diver dives from a ship to search for a lost ship at the depth of 3000 feet below sea level. How long will he take to reach the ship?

A) 70 minutes B) 72 minutes

C) 75 minutes D) 76 minutes

4. A train runs at a speed of 42 m/s and takes 35 seconds to pass a tunnel. After travelling some distance, it takes 15 seconds to pass a pole. What is the length of the tunnel?

A) 162 m B) 630 m C) 840 m D) 240 m

5. Surekha travels 10km to reach her office. She walks 0.5km on foot at a speed of 8kmph to catch her charted bus which travels at a speed of 40kmph. Time taken by her to reach the office is?

A) 15 min B) 20 min C) 18 min D) 30 min

6.Rajesh commutes daily by travelling 4/5 of the distance between his home and office by Metro train, 3/20 by auto and remaining 1km on foot. The distance between his home and

office is:

A) 12 km B) 16 km C) 24 km D) 20 km

7.A long distance train is scheduled to reach its destination in 19 hours. After 10 hours of journey, due to disruption of rail traffic, the train has to be stationed for 1 hour. If the average speed of the train is 100kmph, at what speed should it travel to cover the distance in same amount of time?

A) 110 km/hr B) 110.5 km/hr

C) 112.5 km/hr D) 112 km/hr

8. Supriya runs a marathon race in 50 min at an average speed of 48 km/hour. In order to set a national record, she needs to win the race in 40 minutes, Considering that her speed remains constant, at what minimum speed should she run to set the record?

A) 70 km/hr B) 60 km/hr

C) 55 km/hr D) 50 km/hr

9. A train Rajdhani starts from Suratkal at 5 a.m with the speed of 15 kmph. Another train Shatabdi starts from the same place in the same direction at 7 a.m with a speed of 20 kmph. At what time will both the trains meet each other?

A) 3 pm B) 2 pm C) 12 pm D) 1 pm

10. Rasheb starts for a wedding venue at 6 p.m and drives at a speed of 60 km/hr. Ramesh starts for the same venue at 6.30 pm and drives at a speed of 75 km/hr. When will both reach the venue, provided they reach at the same time?

A) 8.00 pm B) 9.30 pm

C) 9.00 pm D) 8.30 pm

11. By walking 5/3 rd of usual speed, a student reaches school 40mins earlier. His usual time is

A) 1 hour 50 min B) 1 hour 40 min

C) 2 hours D) 45 min

12.A train 130 metres long is running with a speed of 70 kmph. In what time will it pass a man who is running at 8 kmph in the direction opposite to that in in which the train is going?

A) 10 sec B) 8 sec C) 6 sec D) None of these

13. Find out the length of the bridge, which a train 180 meters long and travelling at 27 km/hr can cross in 40 seconds.

A) 120 m B) 130 m C) 150 m D) None

14. A light from laser beam travels at a speed of 300000000 meters per second. How far can it be seen within 20 nano seconds assume that there is no obstruction between?

(20 nano sec = 2 x 10-8 sec)

A) 3 m B) 20 m C) 6 m D) 0.6 m

15. A train travelling at 250 kmph overtakes a cyclist who is travelling at 10 kmph in 45 seconds. What is the lengh of the train in metres?

A) 3000 B) 5400 C) 6000 D) 10800

16. Consider the following parameters:

1. A boat travels 300 meters upstream in 15 mins.
2. Its speed downstream is 8/5 times its speed upstream.

Which of the given options provides the correct relationship between speed of current and speed of the boat?

A) Speed of the current = 12/10 times the speed of the boat

B) Speed of the current = 3/13 times the speed of the boat

C) Speed of the current = 12/10 times the speed of the boat

D) Speed of the current = 9/13 times the speed of the boat

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. D) | 2. B) | 3. C) | 4. C) | 5. C) | 6. D) |
| 7. C) | 8. B) | 9. D) | 10.D) | 11.B) | 12.C) |
| 13.A) | 14.C) | 15.C) | 16.B) |

**Time and Work, Pipes and Cisterns, Chain Rule**

1. Ronald and Elan are working on an assignment. Ronald takes 6 hours to type 32 pages on a computer. While Elan takes 5 hours to type 40 pages. How much time will they take, working together on two different computers to type an assignment of 110 pages?

A) 7 hours 30 minutes B) 8 hours

C) 8 hours 15 minutes D) 8 hours 25 minutes

2. Recycling 900kg of paper saves 17 trees. How many trees are saved when 1200kg of paper are recycled?

A) 19 B) 25 C) 20 D) 22

3. A can finish a job in 12 hours and B in 14 hours, A & B work alternatively, starting with A. If A earns Rs.50 per hour, how much does A earn through this job?

A) Rs. 400 B) Rs.250 C) Rs.300 D) Rs.350

4. 20 men can do a job in 10 days, working 8 hours a day. If women are 33.33% more efficient than men, how many women will it take to finish the same job in 10 days, working 6 hours a day?

A) 10 B) 12 C) 15 D) 20

5. Two pipes A & B can separately fill a cistern in 220 minutes and 330 minutes. Together, they can fill the cistern in:

A) 1 hour 32 minutes B) 1 hour

C) 2 hours 12 minutes D) 2 hours

6.A contractor estimates that 3 people can paint Mr. Khan’s house in 4 days. If he uses 4 people instead of 3, how long will they take to

Complete the job?

A) 4 B) 2 C) 3 D) 5

7.Pardeep receives an export order for garments. He has 30 machines to complete the order in 60 days. How many machines would be required to complete the job in 40 days?

A) 50 B) 25 C) 35 D) 45

8. An air conditioner can cool the hall in 40 min while another takes 45 min to cool under similar conditions. If both air conditioners are switched on at same instance, then how long will it take to cool the room?

A) 22 min B) 20 min C) 30 min D) 25 min

9. A can finish a job in 15 days and B can do the same work in 18 days. A worked for 10 days and left the job. In how many days B alone can finish the remaining work?

A) 5 days B) 6 days C) 5.5 days D) 8 days

10. A man can complete 3/8 of a work in 24 days. At this rate, how much more time is required to complete the work?

A) 40 days B) 15 days C) 64 days

D) None of these

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. C) | 2. D) | 3. D) | 4. D) | 5. C) | 6. C) |
| 7. D) | 8. A) | 9. B) | 10.A) |

**Permutations and Combinations, Probability**

1. If a ball is drawn at random from a box containing 6 red, 4 blue and 5 white balls, what is the probability that the ball drawn is red or blue?

A) 1/3 B) 2/3 C) 7/15 D) 2/5

2. Ramesh, Abhijeet and Ajay are eligible to be the captain of the cricket team. Shaid, John, Shisir and Nitin are eligible to be the co-captain. How many possible outcomes are there for choosing a captain and a co-captain?

A) 12 B) 7 C) 9 D) 16

3. There are 3 main steps of completion of a project- Development, Review and Roll out. After development, there are 4 people who can independently work and lead the process to the next step i.e, review. Further ahead, there are 5 people who can work independently and lead to the next step i.e Roll-out. In how many ways can a project manager complete the project?

A) 20 B) 9 C) 15 D) 25

4. A salesman has a record of selling even rejected pieces to his customers without letting them know that the product is actually faulty. His skills are rated with a probability of 80% efficiency. If he is given 20 faulty items, how many will he be able to sell?

A) 80 B) 20 C) 16 D) 4

5. The boss accepts only one employee’s leave request for a particular day. If five employees named Ronak, Mahesh, Shripal. Mohanpriya and Shreyansh applied for leave on the occasion of Ganesh Chaturthi. What is the probability that Ronak’s leave request will be approved?

A) 2/3 B) 1 C) 4/5 D) 1/5

6. If we permute 5 letters of the word ‘lemon’ in 5! Ways. In how many words vowels do not come together?

A) 120 B) 72 C) 48 D) 24

7. The number of 6-digit numbers that can be formed from 0, 1, 5, 6, 7 and 8 in which the first digit is not 0 are:

A) 120 B) 600 C) 720 D) 800

8. 10 scooters, 5 motorcycles and 15 cars are parked in the parking area of a market. What is the probability that a scooter will leave the parking first?

A) 1/6 B) 1/2 C) 3/5 D) 1/3

9. Ritu visited a mall where tokens are given while submitting the belongings at the entrance. Tokens are lettered a, b, c,…..z Guard gives the token at random. What is the probability that token given to Ritu is consonant?

A) 5/21 B) 21/26 C) 5/26 D) 26/21

10.The number of ways in which 8 different flowers can be strung to form a garland so that 4 particular flowers are never separated are?

A) 960 B) 2880 C) 288 D) 576

11. How many three digit numbers can be formed using 2, 3, 4 and 5 with none of the digits being repeated?

A) 20 B) 45 C) 24 D) 10

12. If we permute 5 letters of the word ‘mango’. The number of permuted words with ‘n’ at the second place is:

A) 5 B) 6 C) 12 D) 24

13. The number of 6-digit even numbers that can be made from the number 214635 are:

A) 18 B) 72 C) 120 D) 360

14. In how many different ways can the letters of the word ‘OPTICAL’ be arranged so that the vowels always come together?

A) 120 B) 720 C) 4320 D) 2160

15.What is the number of ways of selecting 7 files out of 14 distinct files if one is always selected?

A) 14c7  B) 13c6 C) 1 D) 14p7 E) 13p6

16. Mayank is going on a holiday trip. He wants to pack 3 T-shirts out of 5 he has. In how many ways can he make his choice?

A) 15 B) 10 C) 8 D) 20

17. Five paramedics and four technicians are registered for a rescue team. How many possible combinations one can choose to make a rescue team of a paramedic and a technician?

A) 9 B) 40 C) 20 D) 18

18. In a non-leap year, what is the probability that the last day of the year starts with a ‘T’ ?

A) 4/7 B) 1 C) 0 D) 2/7

19. In an examination, a candidate is required to answer 5 questions in all, from 2 sections having 5 questions each. What are the total number of ways in which a candidate can select the questions, provided that at least two questions are to be attempted from each section?

A) 200 B) 20 C) 100 D) 10

20. The number of 5-digit odd numbers that can be made from number 12345 are:

A) 24 B) 32 C) 64 D) 72

21. A quiz has one multiple choice question with answer choices A, B and C and two true/false questions. What is the probability of answering all three questions correctly by guessing?

A) 1/5 B) 1/5 C) 1/3 D) 1/12

22. A bag contains orange flavored candies only. Malini takes out one candy without looking into the bag. What is the probability that she takes out an orange flavored candy?

A) 0 B) 1/2 C) 1/3 D) 1

23. How many 4 digit numbers Can be made using 1, 2, 3, 4, 5, 6 and 7 with none of the digits being repeated?

A) 7! B) 840 C) 4! D) 42

24. The number of 5-digit odd numbers that can be made from number 12345 are:

A) 24 B) 32 C) 64 D) 72

25. A problem on mathematics is given to three students whose chances of solving it are 1/2, 1/3 and 1/4 respectively. What is the chance that the problem will be solved?

A) 2/3 B) 3/4 C) 1/3 D) 1/2

26. In how many ways can the team members be arranged for the team picture if all the males are always together and if the team comprises of 7 males and 6 females?

A) 13! B) 7! 7! C) 7! 6! D) 14!

27. In how many ways can 7 members of the content team, 5 members of the R&D team, 3 members of HR and 2 members of the sales team be allotted workstations in a row so that all employees of the same team sit together?

A) 12! \* 5! B) 7\*5\*3\*2 C) 7!\*5!\*3!\*2!

D) 7!\*5!\*4!\*3!\*2! E) 17!

28. Both Shruti and Pooja randomly choose a colour from red, orange and yellow. What is the probability that both choose orange?

A) 1/3 B) 1/6 C) 1/9 D) 2/3

29. Natural numbers from 1 to 110 are written. What is the probability that number chosen at random will be a prime number?

A) 27/110 B) 25/110

C) 31/110 D) None of these

30. What is the probability that alphabet chosen from the word RANDOM is a vowel?

A) 1/2 B) 3/5 C) 1/3 D) 2/3

31. One person has 2 children. At least one of them was a girl. Then the Probability that 2 of them are girl is?

A) 1/2 B) 1/4 C) 0.36 D) 1

32. If 10cx=1, then what is the value of x, If x >0?

A) 1 B) 5 C) 10 D) 15

33. From a group of 8 men and 8 women, 8 members are to be selected for a team such that women constitute at least 50% of the team. In how many ways can it be done?

A) 8c4 x 8c4 +8c5 x 8c3+8c6 x 8c2+8c7 x 8c1+8c8

B) 84 x 84

C) 8c4 x 8c4

D) 84 x 84 + 83 x 85 + 82 x 86 + 87 x 8 + 1

34. If nc5 = nc6, what is the value of 15cn?

A) 1365 B) 15! C) 11 D) 11!

35. A written exam consists of 6 questions with the answer options as yes/no/none. In how many ways can the examinees select the answers?

A) 6p3 ways B) 6c3 ways

C) 3c1 x 3c1 x 3c1 x 3c1 x 3c1 x 3c1 D) (3c1)6

36. In how many ways can you arrange the dinning table with 3 sweets and 4 fruit bowls in a line, if all the sweets should be at even places?

A) 7c3 x 3! x 4c4 x 4! B) 7p7 C) 3! x 4!

D) 3p3 x 4p4 x 7!

37. In an interview conducted for 5 ABC consulting candidates, 6 Global Ltd. Candidates, 2 candidates from Avilvar company, 3 from Sona Ltd and 1 from Bent company, what is the probability that the candidate who would be selected is from Sona Ltd. It is given that one candidate from Global Ltd. Had not come for the interview round and one candidate from ABC Consulting got blacklisted during the interview process.much money was Dilshan able to save as a result of the various discounts offered by the store?

A) 3/7 B) 17c1 x (3/17)

C) 3/15 D) 15c1 x (3/15)

38. The causes of productivity loss are to be written around a circle in the annual report. In how many ways can an analyst write them around the circle, if the number of causes are 5?

A) 5! B) 5c5 C) 5p5  D) 4! E) 4c4

39. A company decides a new identity code for all its employees. The identity code would comprise of five letter initials that can be formed using the alphabets of English language such that the fifth letter is always a consonant. How many such combinations are possible?

A) 263 x 212 B) 214 x 26

C) 213 x 262 D) 264 x 21

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. A) | 2. A) | 3. A) | 4. C) | 5. D) | 6. B) |
| 7. B) | 8. A) | 9. B) | 10.B) | 11.C) | 12.D) |
| 13.D) | 14.B) | 15.B) | 16.B) | 17.C) | 18.D) |
| 19.A) | 20.A) | 21.D) | 22.D) | 23.B) | 24.D) |
| 25.B) | 26.B) | 27.D) | 28.D) | 29.D) | 30.C) |
| 31.A) | 32.C) | 33.A) | 34.A) | 35.D) | 36.C) |
| 37.D) | 38.D) | 39.D) |

**Number Series**

1. 10, 7, 12, 10, 14, ?

A) 18 B) 12 C) 13 D) 16

2. 5, 25, 61, 113, ?

A) 181 B) 121 C) 212 D) 241

3. 9, 54, 135, 252, ?

A) 400 B) 405 C) 380 D) 420

4. 2, 35, 104, 209, ?

A) 350 B) 308 C) 418 D) 362

5. 3, 7, 13, 21, ?

A) 36 B) 33 C) 41 D) 31

6. 2, 3, 6, 18, 108, ?

A) 54 B) 1002 C) 216 D) 1944

7.10, 14, 23, 39, 64, ?

A) 100 B) 125 C) 128 D) 148

8. 2, 3, 5, 7, 11, ? , 17

A) 12 B) 13 C) 14 D) 15

9.7, 8, 15, 23, 38, ?

A) 61 B) 57 C) 62 D) 59

10. 9, 3, 18, 6, 36, 12, ?

A) 24 B) 48 C) 60 D) 72

11. 201, 202, 204, 207, ?

A) 211 B) 209 C) 207 D) 205

12. 2, 4, 12, 48, ?

A) 480 B) 240 C) 960 D) 340

13. 0.28, 0.56, 1.68, ?

A) 2.24 B) 3.36 C) 5.04 D) 6.72

**Simplification**

14.

A) √7 B) 1 C) √5 D) √2

15.mn = 2401, then value of m/n is ?

A) 4/7 B) 7/4 C) 11/3 D) 4/11

16. What is the value of 6-2?

A) 1/36 B) 36 C) -36 D) None of these

17.Find the value of X, 0.009/X = 0.01

A) 0.0009 B) 0.09 C) 0.9 D) 9

18. What is the value of (1/512) 1/9?

A) 1/2 B) 1/3 C) 1/4 D) 1/6

19.

A) 22 B) 21 C) 3 2/7 D) 3 3/7

20. What is the value of (-3/7)-4?

A) 81/2401 B) 2401/81

C) 18/2401 D) 81/2410

21. Evaluate:

(4.563 + 5.443)/(4.562 – 4.56 x 5.44 + 5.442)

A) 0.88 B) -0.88 C) 1 D) 10

22. Find value of n, If 2228/2n = 512

A) 219 B) 218 C) 237 D) None of these

23. Write 81 3/14 into proper fraction.

A) 243/14 B) 1131/14

C) 1137/14 D) 1134/14

24. Solve (13-1 + 14-1 + 15-1)0

A) 0 B) 1 C) -1 D) None of these

25. What is the value of i34

A) -1 B) 1 C) 0 D) i

26. If a = 0.24 & b =1.76, then

(a4 + 4a3b + 6a2b2 + 4ab3 + b4)

A) 1.52 B) 4 C) 1 D) 2

27. What is the value of the expression

3√(√0.000729)?

A) 0.03 B) 0.3 C) 0.27 D) 0.027

28. What is the value of (52 x 258 / 625)2/7

A) 5 B) 25 C) 625 D) 5/7

29. What is the value of the expression?

5\*(2 + 16)/ 2 – 4 \*(2 +2) + ¼ of 16?

A) 26 B) 13 C) 34 D) 33

30. If (22n-1 = 1/8n-3) then, value of n is

A) 3 B) 2 C) 0 D) -2

31. 3 x (44 + 43 + 42 + 4 + 1) = ?

A) 1019 B) 1029 C) 1026 D) 1023

32. What number should be divided by (0.81)1/2 to give result as 81?

A) 9 B) 81 C) 72.9 D) 0.9

33. Steward assigns 1/8th of his monthly salary for food. Steward’s total food bill for the month is Rs.6500. What is Steward’s yearly salary?

A) Rs. 9750 B) Rs. 12174

C) Rs. 576000 D) Rs. 624000

34. Write √1008 into as a mixed surd

A) 12√7 B) 7√14 C) 7√12 D) 7√13

35. Find the cube of (21)2/7

A) 73 x 35 B) 73 x 36 C) 73 x 92 D) 72 X 93

36. (144-3/2)-1/6

A) 2√3 B) 6 C) 3√2 D) 4

37. The correct relationship after eliminating x, y and z from x + y = a, y + z = b, z + x = c and x + y + z = m, is

A) m = x + y + z B) 2m = a + b + c

C) m = x – y – z D) 2m = x – y – z

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. C) | 2. A) | 3. B) | 4. A) | 5. C) | 6. D) |
| 7. A) | 8. B) | 9. A) | 10.D) | 11.A) | 12.B) |
| 13.C) | 14.A) | 15.B) | 16.A) | 17.B) | 18.A) |
| 19.A) | 20.B) | 21.D) | 22.A) | 23.C) | 24.B) |
| 25.C) | 26.C) | 27.B) | 28.C) | 29.D) | 30.B) |
| 31.D) | 32.C) | 33.D) | 34.A) | 35.B) | 36.A) |
| 37.B) |

**Averages, Area and Volume**

1. A field person of a customer care department of a company on an average attends to 3 complaints. If customer care receives about 200 complaints daily, and have 45 field persons to attend to these, how many complaints are to be out sourced?

A) 145 B) 135 C) 55 D) 65

2. Rahul played well in this season. His current batting average is 51. If he scores 78 runs in today’s match, his batting average will become 54. How many matches had he played in this season?

A) 8 B) 10 C) 9 D) 6

3. In a match, awards are given to each of 11 members of the team and a trophy to the team. In all winning team gets 2.75 kilograms weight awards. If the weight of match winning trophy is 1.275 kilograms, what is the weight of the award given to each player?

A) 200 grams B) 150 grams

C) 124 grams D) 134 grams

4. If Mini downloads three more songs in her mobile she will have songs worth 512 MB in her mobile. If on an average each song is 4 MB, how many songs did she initially have in her phone before downloading?

A) 125 B) 128 C) 120 D) 137

5. On an average, a content developer can develop 6 questions in an hour. Resource manager wants to complete the project of 2400 questions in 20 hours. How many developers should he take in his team?

A) 30 B) 20 C) 40 D) 10

6.In a test called ACSAT, the average marks of 15 test takers is 240. If the marks of 5 test takers are subtracted, the average marks decreases by 40. What is the average mark of 5 test takers?

A) 1600 B) 320 C) 200 D) 40

7.A lawn is in a form of an isosceles triangle. The cost of turfing became Rs.1200 at Rs. 4 per m2. If the base of the lawn is 40 meters long. Then the length of each side is

A) 25m B) 40m C) 50m D) 35m

8. If the perimeter of a rectangular plot is 70 meter and its area is 306 sq.m. What is the length of shorter side?

A) 18 m B) 15 m C) 17 m D) 13 m

9. A rectangle’s length is four times its breadth. It has an area of 2500 sq. yards. What is the length of the rectangle?

A) 25 Yards B) 100 Yards

C) 625 Yards D) 5 Yards

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. D) | 2. A) | 3. D) | 4. A) | 5. B) | 6. B) |
| 7. A) | 8. C) | 9. B) |

**Coding / Decoding**

1. If RESULT is coded as SFTVMU then EXAM is coded as:

A) FWBO B) DYZL

C) FYBN D) DXZL

2. If NORMAL is coded as LAMRON, then SYSTEM is coded as:

A) TXTUDN B) METSYS

C) TZTUFN D) METSSY

3. If WORD is coded as 9753, then DOOR is coded as:

A) 3579 B) 3559 C) 9357 D) 3775

4. If EAGLE is coded as FZHKF, what is the code for THANKS?

A) UGBMLR B) RGZMJT

C) UIBOLT D) RIAOJT

5. If BLACK is coded as DNCEM, then ORANGE is coded as:

A) QTPIG B) PSCOHF

C) PSBOHF D) QTCOIG

6. If SAME is coded as VDPH, then IDENTICAL is coded as:

A) KFHPVKEDN B) LACITNEDI

C) LGHQWLFDO D) KACITNEDI

7.If STUMP is coded as PQRJM, then PITCH is coded as:

A) MFQZE B) QJUDI C) MEQAE D) RKVEK

8.If DELHI is coded as 34178, what is the code for MUMBAI?

A) 202801 B) 202108

C) 202018 D) 202081

9. If NOBLE is coded as ONBEL then GRAND is coded as:

A) RGADN B) HSBOE

C) HTCOD D) RAGDN

10. In a certain code, SPECIFY is written as 1916539625. How is ABOUT written in that code?

A) 13162120 B) 12162120

C) 12152019 D) 12152120

11. In a certain language RIPPLE is written as 785514. What is the code of PILLER in that language?

A) 561147 B) 561174

C) 581174 D) 581147

12.If COMPUTER is coded as GKQLYPIN, what is the code for SENATE?

A) WAREXA B) WAERXA

C) WARWXA D) WAERAX

13. If CABLE is coded as 64592, then LABLE is coded as:

A) 91295 B) 29546

C) 94592 D) 29456

14.If JUDGE is coded as UJDEG, then ORDER is coded as:

A) RODRE B) REDRO

C) RODER D) REDOR

15. In a certain code, JOHN is written as LSNV. How is MARK written that code?

A) OYES B) OEXS C) OEXT D) OEYT

**Analogy**

16.EHKN: FGLM:: CFIL: ?

A) DEJK B) DGJM C) BEHK D) BGJM

17. QDXM: SFYN::UIOZ:?

A) PAQM B) LPWA C) QNLA D) WKPA

18. CEHL : MORV :: WYBF : ?

A) GIKM B) GILP C) GJMP D) GHJM

19. EKC : GMI :: OUM : ?

A) QWO B) UAO C) UAS D) QWS

20. BHE : FLI : JPM : ?

A) OTP B) NTQ C) NSP D) OSP

21. AZP : ZAR :: TXK : ?

A) UWL B) SYM C) SVN D) VWL

22. A17R : D12P :: G7N : ?

A) H2K B) J3M C) J2L D) H3K

23. G3S : J3P :: L4X : ?

A) P3Y B) O3T C) P4T D) Q4S

24. DEF : EDF :: GHI :?

A) HGI B) HIG C) IHG D) IGH

25. PROGRAM : QTRKWGT :: APPLIANCE :?

A) BRSPNGUKO B) BRSQNGUKN

C) BRSQNGUKO D) BRSPNGUKN

26. PSQR : SVTU : DGEF : ?

A) IKHJ B) HJKI C) HKIJ D) IHJK

27. POLICY : NPJJAZ :: INSURANCE : ?

A) GOQVPBLDC B) GOQVQBLDC

C) GOQVRBLDC D) GOQVPBLEC

28. QPS : TSV :: IHK : ?

A) LKN B) NQP C) MKN D) LOM

29. 24 : 50 :: 102: ?

A) 204 B) 206 C) 152 D) 156

**Odd man out**

30. Choose the odd one.

A) LABLOTOF B) ONSEL

C) CEKTRIC D) SNINET

31.Choose the odd one.

A) ACFJ B) CEHL C) PRUY D) SUXZ

32. Choose the odd one.

A) HAIR B) LIAR C) FAIR D) PAIR

33. Choose the odd one.

A) BCEHB B) PQSV C) CDGK D) STVY

34. Choose the odd one.

A) FHKO B) CEHL C) ZBEJ D) XZCG

35. Choose the odd one.

A) KML B) PRQ C) NPQ D) TVU

36. Choose the odd one.

A) AEK B) DFH C) TWZ D) MOQ

37. Choose the odd one.

A) AE5 B) DF6 C) HN14 D) KP18

38. Choose the odd one.

A) N3K B) T4P C) W5S D) Q2O

39. Choose the odd one.

A) BCE B) HJN C) MPV D) NRW

40. Choose the odd one.

A) BDF B) MQT C) HKN D) PTX

41. Choose the odd one.

A) PSRQ B) MNPO

C) SVUT D) KNML

42. Choose the odd one.

A) BCEH B) PQSV C) CDGK D) STVY

43. Choose the odd one.

A) AFB B) MRN C) KPL D) RXS

44. Choose the odd one.

A) FJN B) HLO C) CGK D) KOS

45. Choose the odd one.

A) CEH B) PRV C) TVY D) MOR

46. Choose the odd one.

A) BDF B) MQT C) HKN D) PTX

47. Choose the odd one.

A) HIKJ B) KLNM C) STVU D) RSTU

48. Choose the odd one.

A) DEB B) FGD C) PQN D) TUS

49. Choose the odd one.

A) BAD B) FEH C) POS D) TSV

50. Choose the odd one.

A) C5H B) E6L C) M4Q D) T3W

51. Choose the odd one.

A) FU B) DW C) CX D) NR

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. C) | 2. B) | 3. D) | 4. B) | 5. D) | 6. C) |
| 7. A) | 8. B) | 9. A) | 10.D) | 11.D) | 12.C) |
| 13.C) | 14.A) | 15.B) | 16.A) | 17.D) | 18.B) |
| 19.D) | 20.B) | 21.B) | 22.C) | 23.C) | 24.A) |
| 25.D) | 26.C) | 27.A) | 28.A) | 29.B) | 30.B) |
| 31.D) | 32.B) | 33.C) | 34.C) | 35.C) | 36.A) |
| 37.D) | 38.C) | 39.D) | 40.B) | 41.B) | 42.C) |
| 43.D) | 44.B) | 45.B) | 46.B) | 47.D) | 48.D) |
| 49.C) | 50.B) | 51.D) |

**Distance and Direction,**

**Blood Relations**

1. One day, Raja left home and cycled 5km southwards, turned left and cycled 2km and turned left again and cycled 3km. Then he turned right and cycled 5km. How many kilometers will he have to cycle to reach his home straight?

A) **√**53 B) **√**54 C) **√**55 D) **√**56

2. Indu walks 30 meters west and takes a left turn to walk 10 meters, then takes left turn again and walks 40 meters, and takes another left turn and walks 20 meters. In which direction is she standing now from the starting point?

A) North-East B) South-East

C) North-West D) North

3. Meeru has lost her way home and was standing 25 meters away from her house in the south-west direction. She walks 20 meters north and reaches point A. How far and in which direction would she have to walk to reach her house?

A) 20 meters, East B) 15 meters, East

C) 15 meters, West D) 20 meters, West

4. Sahiti is facing south-east, she turns 1800 clockwise direction, then 3600 in the anticlockwise direction and then another 2700 clockwise direction. Which direction is he face now ?

A) South B) South-West

C) West D) South-East

5. Mayank travelled a distance of 80 m towards North. Then he turns right and travels 65 m, then again turns northwards and travels 45 m. He further travels by turning 450 clockwise. Towards which direction is he running now?

A) North B) West

C) South-West D) North-East

6. Shivam put his wall clock on a table in such a way that at 9 a.m, the hour hand was pointing South. In which direction will the minute hand point at 9.30 p.m?

A) South B) North C) West D) East

7.If North-West becomes East and North-East becomes South and soon, then what does East become?

A) South-West B) North-East

C) North-West D) South-East

8.Pentamma is standing at a point A facing North. She walks 15 meters to her left and takes an about turn and walks 30 meters. How far and in which direction is she from the starting point?

A) 15meters, West B) 15 meters, East

C) 45 meters, East D) 45 meters, West

9. Siri moves a distance of 9 meters towards East. She then moves towards South and travels a distance of 4 meters. From here, she moves a distance of 6 meters towards West. How far is the starting point from her final position?

A) 3 meters B) 4 meters

C) 5 meters D) 7 meters

10. Kapil drives 12 kms towards west and then 3 kms towards south. He then turns east and drives 8 kms. How far is he from his starting point?

A) 4 kms B) 5 kms C) 9 kms D) 10 kms

11. A lady walks 8 km towards east, then 3 km towards south and then she walks 4 kms towards west. How far is she from his initial position and in which direction?

A) 5 km towards south-east

B) 7 km towards west

C) 5 km towards south-west

D) 8 km towards west

12.A child while coming home from his school first goes 4 kms towards South-East, then 8 kms towards West. He then goes 4 kms towards north-west. In which direction is he from his school?

A) East B) North C) South-East D) West

13. X walks 6km towards east from a point A and from the same point A, Y walks 8 km towards south. How far are the two friends from each other now?

A) 14 kms B) 2 kms C) 10 kms D) 5 kms

14.A man moves 2 kms towards east, then 3 kms towards South and again 2 kms towards west and then he goes 2 kms towards the initial point from where he started. In which direction is he from his initial position?

A) East B) South C) West D) North

15. A child has strayed from his path while coming home from the school. He first goes 3 kms towards south from his school and then moves 5 kms towards east. He again moves 3 kms towards north and then goes 2 kms towards west. How far is his school situated from home?

A) 3 kms B) 1 km C) 2 kms D) 8 kms

16. Aakriti is standing on point A facing west. She walks straight for 15 meters and then takes a right turn and walks 8 meters to reach point B. What is the smallest distance between the two points and in which direction of point A does point B lie?

A) 15 meters, West

B) 8 meters, North-West

C) 17 meters, North-West

D) 17 meters, North-East

17. Aaron was riding his bike. He rode 50 m south and took a left turn to ride another 70 meters. After that he took another left turn and rode 50 meters again and finally he took a right turn to ride 60 meters more. How far and in which direction is he from the starting point?

A) 120 meters, West B) 110 meters, East

C) 110 meters, West D) 130 meters, East

18. A man walks 20 km towards South and then 15 km towards east. How far is he from his initial position?

A) 25 kms B) 30 kms C) 40 kms D) 50 kms

19. A tourist has strayed from his path while on his way to his hotel. He moves 28 kms towards south, then moves 20 kms towards west, then 4 kms towards north and then 2 kms towards east to reach his hotel. What is the distance of the shortest possible route?

A) 45 kms B) 20 kms C) 18 kms D) 30 kms

20. Sumit is facing North. He walks 10 mt. North and takes a left turn and walks another 40 meters. He then takes a right turn and walks 20 meters more. How far and in which direction is Sumit standing from the point where he had started?

A) 50 meters, North-East

B) 70 meters, North-West

C) 50 meters, South-West

D) 50 meters, North-West

21. P is 60 meter South-East of Q. R is 60 meter North-East of Q. Then R is in which direction of P?

A) North B) North-East

C) South D) South-East

22. A man was walking in the evening just before the sun set. His wife said that, his shadow fell on his right. If the wife was walking in the opposite direction of the man, then which direction the wife was facing?

A) North B) West C) South D) East

23. A puppy was trying to find its mother. It was facing East and walked 10. It turned South then and walked another 10 m. Then it started walking towards North it walked 20 m and turned West. After that, it walked 10 m and moved 2 m South. In which direction and how far is it from the original position?

A) 60 m North-East B) 10 m North-East

C) 8 m North D) 25 m North

24. A girl facing towards west. She turns 450 in the clockwise direction and then 1350 in the anticlockwise direction. Which direction is she face now

A) South-West B) North-West

C) South D)West

25. A tourist drives 10 km towards East and turns right and drives for another 3 km. He then drives another 3 km towards West (turning to his right). He then turns to his left and walks another 2 km. afterwards, he turns to his right and travels 7 km. How far and in which direction will he be from his starting point?

A) 10 km East B) 9 km North

C) 8 Km West D) 5 km South

26. Pointing to a man, a girl said, “He is the husband of the grand daughter of the mother of my mother”. How is the man related to the girl?

A) Cousin B) Brother-in-law

C) Brother D) Father

27. Pointing to a woman, a man said, “Her father is the only son of my mother”. How is the man related to the woman?

A) Father B) Cousin C) Nephew D) Brother

28. Introducing a man, a woman said, “He is the husband of my mother’s daughter”. How is the women related to the man?

A) Mother B) Daughter

C) Sister D) None of these

29. A @ B means A is the mother of E.

A \* B means A is the father of B.

A % B means A is the son of B.

A – B means A is the daughter of B.

If P @ Q – R \* S, then how is R related to Q?

A) Uncle B) Father

C) Grandfather D) Brother

30. M and N have two children A and B. F is the spouse of B. D is the child of F. P is the son-in-law of N. K is the child of P. Who is the male child of M and N?

A) B B) D C) A D) K

31. X says, pointing towards Y, he is my sister’s only brother’s son. How Y related to X?

A) Nephew B) Son C) Brother D) Uncle

32. X is the wife of Y and Y is the brother of Z, Z is the son of P. How is P related to X?

A) Sister B) Aunt

C) Father-in-law D) Brother-in-law

33. Angad introduces Geeta as the wife of the grandson of his mother. How is Angad related to Geeta?

A) Father-in-law B) Brother-in-law

C) Uncle D) Grandfather

34. P is the son-in-law of S. T and Q are the children of P. M is the mother of T. How is M related to S?

A) Daughter B) Son

C) Mother D) Sister

35. M is P’s brother’s son. N is the only brother of P. How is N related to M?

A) Nephew B) Father

C) Cousin D) Uncle

36. Pointing to a lady, a man said, “She is the wife of my father’s only son”. How is the man related to the lady?

A) Brother B) Cousin

C) Husband D) Brother-in-law

37. Pointing to a lady, a man said, “she is the daughter of the woman who is the mother of the husband of my mother”. How is the lady related to the man?

A) Grandmother B) Sister

C) Mother D) Aunt

38. Looking at a man’s portrait, Harsh said, “His mother is the wife of my father’s son. Brothers and sisters I have none”. At whose portrait was Harsh looking?

A) His son’s portrait B) His cousin’s portrait

C) His uncle’s portrait D) His nephew’s portrait

E) None of these

39. Pointing to a girl child in a photograph a woman said, “Her mother’s sister is the wife of my son”. How is the woman related to the child?

A) Mother B) Daughter

C) Sister D) None of these

40. Pointing to a boy in a photograph, a girl said, “He is the son of the daughter-in-law of my mother’s mother”. How is the girl related to the boy?

A) Son B) Brother C) Nephew D) Cousin

41. A is the only son of P. P is B’s mother’s mother-in-law. How is A related to B?

A) Father B) Brother C) Uncle

D) Sister E) Husband

42. Q is the wife of R. M is the mother of R and S. How is M related to Q?

A) Father B) Mother-in-law

C) Uncle D) Father-in-law

43. B is the only daughter-in-law of A. M is the only grandson of A. P is M’s father. How is P related to B?

A) Husband B) Son-in-law

C) Son D) Wife

44. A man goes to the park and sees a girl who he recognized to be his relative. The girl was the daughter of his sister’s husband’s wife. How is the girl related to the man?

A) Niece B) Sister-in law

C) Sister D) Aunt

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. A) | 2. A) | 3. B) | 4. B ) | 5. D) | 6. D) |
| 7. A) | 8. B) | 9. C) | 10.B) | 11.A) | 12.D) |
| 13.C) | 14.B) | 15.A) | 16.D) | 17.D) | 18.A) |
| 19.D) | 20.D) | 21.A) | 22.C) | 23.C) | 24.C) |
| 25.D) | 26.D) | 27.A) | 28.D) | 29.B) | 30.A) |
| 31.B) | 32.C) | 33.A) | 34.A) | 35.B) | 36.C) |
| 37.D) | 38.A) | 39.D) | 40.D) | 41.A) | 42.B) |
| 43.A) | 44.A) |  |  |  |  |

**Coding Inequalities, Data Arrangements**

1. “%” denotes “greater than”

“˃” denotes “equal to”

“=” denotes “not less than”

“@” denotes “not equal to”

“#” denotes “less than”

“\*” denotes “not greater than”

**Statements**

A%B, C=E, D\*B

**Conclusions**

1. A#D II. C\*E

A) Only conclusion I is true

B) Only conclusion II is true

C) Either conclusion I or II is true

D) Neither conclusion I nor II is true

2. A + B means A is greater than B

A – B means A is less than B

A = B means A is greater than equal to B

A \* B means A is equal to B

A / B means A is not equal to B

**Statements**

D = E, E + F, F / G

**Conclusions**

I. D + F

II. F \* G

A) Only conclusion I is true

B) Only conclusion II is true

C) Neither conclusion I nor II is true

D) Both conclusions I and II are true

3. “%” denotes “greater than”

“˃” denotes “equal to”

“=“ denotes “not less than”

“@” denotes “not equal to”

“#” denotes “less than”

“\*” denotes “not greater than”

**Statements**

P˃S, S@T, P#R

**Conclusions**

1. S%R II. P@T

A) Only conclusion I is true

B) Only conclusion II is true

C) Neither conclusion I nor II is true

D) Both conclusion I and II are true

4. “%” denotes “greater than”

“˃” denotes “equal to”

“=“ denotes “not less than”

“@” denotes “not equal to”

“#” denotes “less than”

“\*” denotes “not greater than”

**Statements**

P=Q, S#R, T\*G

**Conclusions**

I. T\*P II. T%Q

A) Only conclusion I is true

B) Only conclusion II is true

C) Neither conclusion I nor II is true

D) Both conclusion I and II are true

5. Given signs signify something and on that basis, assume the given statement to be true. Answer the question basis the information provided.

“!” denotes “greater than”

“\*” denotes “equal to”

“+” denotes “less than”

“$” denotes “not equal to”

“x” denotes “not less than”

“%” denotes “not greater than”

**A!B!C does not imply**

A) B+A!C B) C+B+A C) C+A!B D) B+A+C

6. “#” denotes “greater than”

“/” denotes “equal to”

“&” denotes “not equal to”

“+” denotes “lesser than”

“%” denotes “a little more than”

“\*” denotes “a little less than”.

**If AC%BC, then**

A) A/C B) B#C C) C#B D) B+A

7. “x” denotes “lager than”

“+” denotes “equal to”

“-” denotes “not equal to”

“/” denotes “smaller than”

“%” denotes “not smaller than”

“\*” denotes “not larger than”

**If A/B and B/C, then?**

A) A+C B) AxC C) A-C D) A%C

8. Five cars are parked in a row facing eastward. E is parked to the left of A, B and C. B, C and A are parked to the left of D. C is parked between A and B. If B is parked fourth from the left, how far is A parked from the right?

A) Fourth B) Third C) Second D) First

9. Mallika, Maneni, Pallavi, Nikita and Suhana are seated in a conference hall facing the stage which is in the North. They are all scattered in such a manner that they do not occupy adjacent seats. The seating arrangement is as given below:

1. Maneni is seated 10 seats away, to the right of Suhana.
2. Pallavi is seated 20 seats away, to the left of Nikita.
3. Mallika is seated 30 seats in front of Suhana.
4. Nikita is seated 15 seats to the right of Suhana.

Who amongst the given options are **NOT** seated in a linear pattern?

A) Pallavi, Suhana, Maneni

B) Mallika, Suhana, Maneni

C) Pallavi, Suhana, Nikita

D) Pallavi, Maneni, Nikita

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. D) | 2. A) | 3. B) | 4. A) | 5. D) | 6. D) |
| 7. C) | 8. A) | 9. B) |

**Data Sufficiency**

Options of all the questions given below:

A) Statement I alone is sufficient

B) Statement II alone is sufficient

C) Both statements put together are sufficient

D) Both the statements even put together are not sufficient

E) Either of the statements is sufficient

1. Vikas ranks 9th in the class. How many students are there in the class?

Statements:

1. His friend got the 35th rank which is the last rank.
2. His rank from the last is 27th.

2. Among the four students – P, Q, R and S, who is the shortest?

Statements:

1. R is taller than Q, but smaller than P.
2. Q is taller than S

3. What is the name of Amrita’s father?

Statements:

1. Smriti is Amrita’s mother.
2. Akhilesh is the husband of Smriti.

4. Problem question: When is Rahul’s birthday?

Statements:

1. His birthday is before 25th and after 22nd November.
2. His birthday is after 23rd and before 26th November.

5. Problem question: How is Mr. Sharma related to Santhosh?

Statements:

1. Santhosh’s mother has two daughters
2. Santhosh’s sister is the wife of Mr. Sharma’s son

6.Problem question: In which year was Rashmi born?

Statements:

I) Rashmi is four years younger to her brother

II) Rashmi’s brother was born in 1998

7.Ionization energy decreases with the increasing size of metal atom. Out of cesium, lithium, potassium and sodium, which will have the lowest lionization energy?

Statements:

1. Cesium has the largest size.
2. The size of sodium lies between potassium and lithium.

8. When is Priyanka’s birthday?

Statements:

1. She was born after 19th but before 25th September.
2. She was born in a leap year.

9. How is Sangeeta related to Manoj?

Statements:

I) Manoj is the only son of Sangeeta’s father.

II) Rohit is Manoj’s father.

10. How many people cast their vote in the MCD elections in metropolitan city – Delhi?

Statements:

1. The population of India is 2 billion and population of each metropolitan city is 15% of the total.
2. 33% of the total population of Delhi cast their votes in the MCD elections.

11. Sharmila is a chemistry teacher. She forgot to bring her time-table and now wants to find out the schedule for XI-B. She knows that there are four subjects taught – Physics, Chemistry, Mathematics and Bilology in four consecutive periods of one hour each starting from 9.00 a.m. At what time is the Chemistry period scheduled?

Statements:

1. Mathematics period ended at 11.00 a.m., which was preceded by Biology.
2. Physics was scheduled in the last period.

12. If the product of two numbers are given, find the numbers?

Statements:

1. Difference of the numbers is given
2. Sum of the numbers is given

13. Who is the fastest among the three workers X, Y and Z?

Statements:

1. X and Y together take 12 minutes to paint a room
2. X, Y and Z together can complete the work in 17 minutes

14. Among the four students of class V – Radha, Meera, Kamala and Geetanjali, who is the tallest?

Statements:

1. Meera is shorter than Radha, but taller than Geetanjali
2. Kamala is taller than Meera

15. What is the monthly salary of Raghu?

Statements:

I) The salaries of Raghu and his brother are in the ratio 5:6 respectively.

II) The salary of Raghu’s brother is Rs.32,000 per month

16. What will be the cost of fencing a rectangular compound if the wire costs Rs.20 per meter?

Statements:

I) Area = 40 m2

II) Length = 2 x breadth

17. 4 people – A, B, C and D are sitting in a row. Who is sitting at the extreme right?

Statements:

1. C is to the left of D.
2. B is to the left of A.

18. I have four friends. What is my age?

Statements:

1. Average of our ages is 85 years.
2. All of us are of the same age.

19. Among five friends A, B, C, D and E, who is the tallest?

Statements:

1. B is taller than A, but smaller than D and E
2. C is smaller than B

20. What is the area of the top of the table?

Statements:

1. The top of the table is rectangular in shape
2. The length of the top of the table is 35 cm

21. How much time would a machine take to put caps on 300 bottles?

Statements:

1. It takes 8 hours to put caps on 300 bottles manually.
2. It takes 2 minutes lesser to put cap on a

bottle using machine than putting it manually

22. What is the cost price of a piece of cloth?

Statements:

1. Selling price is given.
2. Loss percent is given.

23. How many daughters does ‘A’ have?

Statements:

1. A’s wife has four sons: P, Q, R and S.
2. S has one sister.

24. What is the value of A + B + C?

Statements:

1. A + B is twice the value of C and C is a positive square root of 49.
2. A, B and C are equal and their sum is a multiple of 5.

25. What is the monthly salary of my father?

Statements:

I) My father’s and mother’s salaries are in the ratio 5:2 respectively.

II) My mother’s salary is 40% of that of my father’s salary.

26. Who is the tallest among A, B, C and D ?

Statements:

I. A is taller than C. II. B is taller than C and D.

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. E) | 2. C) | 3. C) | 4. C) | 5. B) | 6. C) |
| 7.A) | 8. D) | 9. A) | 10.C) | 11.C) | 12.C) |
| 13.D) | 14.D) | 15.C) | 16.C) | 17.D) | 18.C) |
| 19.C) | 20.D) | 21.C) | 22.C) | 23.C) | 24.E) |
| 25.C) | 26.C) |

**Other important questions**

1. Among the given options identify the one does NOT lie in the range 1/6 < X <17/12

A) 2/7 B) 1/2

C) 4/3 D) 13/11

2. In a section of cinema hall, seats are arranged so that each row has the same number of seats. Abdul is seated in the 5th row from the front and 3rd row from the back. If his seat is 6th from the left and 2nd from the right, how many seats are there in this section?

A) 52 B) 49 C) 45 D) 55

3. Sudha purchased 3 kg potato from market. She used 1/3 of it in cooking baked potatoes and 1/2 of remaining in mixed vegetables. What quantity of potatoes is she left with?

A) 1.5kg B) 2kg C) 1kg D) 2.5kg

4. Namita has 4.2 kg of flour. She has been asked to make 5 cup cakes out of every 1/2 kg of flour. How many cup cakes can she bake out of the flour she has?

A) 21 B) 24 C) 30 D) 42

5. Abu company provides taxi for call center employees. The company has 7 Taveras, 5 Qualis, 6 Innovas and few small cars. If Tavera makes one fourth of the total fleet, how many small cars are there in the company?

A) 12 B) 7 C) 6 D) 10

6. If there are 150 babies born every minute, how many babies share the same birth date world wide?

A) 224000 B) 216000

C) 225000 D) 218000

7.Martha was supposed to multiply the number of cans sold with the price of one can to ascertain the amount earned by her, instead of taking 41 as the number of cans, she wrote 14 by mistake. As a result, the product went down by 135. What is the other multiplier?

A) 5 B) 7 C) 9 D) 12

8.a/b is a fraction where a ˂ b, if n is added to both numerator and denominator, then which one is greater: a/b or (a + n)/(b + n)

A) a/b B) (a + n)/(b + n)

C) Both are equal D)Cannot be determined

9. If Manasa scores 66 out of Hundred Then how much does she score out of 75?

A) 49.5 B) 60.5 C) 66.5 D) 45.5

10. One third of a two digit number exceeds its one fourth by 7. What is the sum of digits of the number?

A) 72 B) 84 C) 15 D) 12

11. What is the relationship between the fractions14/15 and 37/40?

A) 14/15 = 37/40 B) 14/15 ˃ 37/40

C) 14/15 ˂ 37/40 D) Cannot be determined

12. Divide the sum of 3/5 and 8/11 by their difference.

A) 7/73 B) 73/7

C) 11/15 D) None of these

13.Sameer plants 7225 plants, so that there are as many rows as there are trees in a row. How many trees are there in a row?

A) 75 B) 95 C) 85 D) 65

14. In a class of 80 students, 4/5 of them own cars. If 15/16 of them own Alto then how many own alto?

A) 64 B) 20 C) 60 D) Data Inconsistent

15. A content manager is working on an excel sheet. She has 6 columns in the sheet –A, B, C, D, E and F. she has to check that no two columns should have the same entry. She can check only 2 columns at a time. How many times will she have to repeat the comparing process to complete the process for the whole file?

A) 7 B) 8 C) 15 D) 10

16. Nine days ago, the area covered by the mold on a piece of bread was 3 square inches. Today the mold covers 9 square inches. What is the rate of change in mold’s area?

A) 2 square inches per day

B) 3 square inches per day

C) 2/5 square inches per day

D) 2/3 square inches per day

17. The ascending order of rational numbers

-7/10, -5/8, -2/3 is :

A) 7/10, -2/3, -5/8

B) -7/10, -5/8, -2/3

C) -5/8, -7/10, -2/3

D)-2/3, -5/8, -7/10

18. If x is an odd number and y is an even number, then which of the given options is false?

A) xx (yy+1) is odd

B) (x+y) + (xx+x) + (y(xy) is odd

C) xy + yx+1is even

D) xy + 6 is even

19. A pie has to be divided amongst few kids. Puneet gets 2/7th portion of the pie and Sheela gets 5/8th portion of the pie. Who amongst the two gets lesser share?

A) Puneet B) Sheela

C) Both get equal share

D) Cannot be determined

20. Rahul can finish one-fifth of his homework in one hour. Neha can finish three-seventh of her homework in one hour thirty min. and Riya can finish three fourth of her homework in three hours thirty minutes. If all of them start their homework at 12 p.m. and can go to play as soon as they all finish their homework, when can they start to play, if they take a break at 3.30 p.m. for thirty minutes?

A) 5.00 p.m B) 5.30 p.m C) 4.40 p.m

D) 6.30 p.m E) 3.30 p.m

21. At a party, there ae 43 persons in all. The number of women is two more than men but the number of children is 4 less than men. How many women are there in the party?

A) 17 B) 13 C) 11 D) 25

22. The smallest among the numbers 2250, 3150, 5100 and 4200 is ?

A) 4200 B) 5100 C) 3150 D) 2250

23. -3.4 is a number on a real number line. If we subtracted 1 from this number, then the new number will be?

A) Farther from the origin than -3.4

B) Closer to the origin than -3.4

C) Equally Farther from the origin as, -3.4 is

D) None of these

24. What is the value of (a, y ) in

13-20-a x 13y = 168 x 13-22

A) 1 , 2 B) 0, 1 C) -1, 2 D) 1, -22

25. Find the number to be multiplied by (-6)-1 so as to get (-8)-1as a product

A) 3/4 B) -(3/4) C) 4/3 D) -(4/3)

26. Supreme coal limited mined 25/3 tons of coal on Tuesday, 23/4 tons of coal on Monday and 19/2 tons of coal on Wednesday. If the goal is to mine 30 tons of coal this week, then how many more tons of coal needed to be mined?

A) 23.59 tons B) 7.56 tons

C) 6.89 tons D) 6.41 tons

**Answer Key:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1.D ) | 2. B) | 3. C) | 4. D) | 5. D) | 6. B) |
| 7. A) | 8.D ) | 9. A) | 10.D) | 11.B) | 12.B) |
| 13.C) | 14.C) | 15.C) | 16.D) | 17.A) | 18.C) |
| 19.A) | 20.B) | 21.A) | 22.B) | 23.A) | 24.D) |
| 25.A) | 26.D) |

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