TCS NQT Numerical Ability Real Company Questions By – Mr. Durgesh StudyHub

Q1. The following pie chart shows the expenditure in percentage on various items and savings of a family during a month.

What is the monthly expenditure on education if the monthly expenditure on clothes is 2400?

*

Captionless Image

A. Rs. 3500

B. Rs. 3000

C. Rs. 6000

D. Rs. 4000

Q2. A can finish a work in 16 days and B can finish the same work in 20 days. After A had worked for 4 days, B also joined with A to finish the remaining work. In how many days will the remaining work be finished?

*

A. 8 1/9 days

B. 6 ⅔ days

C. 8 8/9 days

D. 6 ⅓ days

Q3. If mean of 29 observations is 33 and on adding one more observation the mean becomes 34.

What is the value of the 30th observation?

*

A. 68

B. 34

C. 55

D. 63

Q4. The following table gives the percentage distribution of the population of four states A, B, C and D based on the poverty line and on gender.

If state A's female population of the below poverty line is 2,00,000, what is the total population of state A?

Captionless Image

A. 800000

B. 925000

C. 875000

D. 920000

Q5. Raju lends Rs. 3000 to Bharath and a certain sum to Charan at the same time at 6% per annum simple interest. If after 5 years, Raju altogether receives Rs. 1650 as the interest from Bharath and Charan, what is the sum lent to Charan?

A. Rs. 2500

B. Rs. 2750

C. Rs. 3250

D. Rs. 3300

Q6. 80 kg of an alloy X is mixed with 50 Kg of an alloy Y. If alloy X has lead and copper in the ratio 3:7 and alloy Y has lead and copper in the ratio 7:3, what is the amount of lead in the new alloy?

*

A. 59 kg

B. 35 kg

C. 24 kg

D. 56 kg

Q7. The population of a town is 1,21,000. If it increases at the rate of 10% per annum, what is the difference between the population 3 years hence and that of 2 years ago?

*

A. 61251

B. 61055

C. 61051

D. 62041

Q8. What is the standard deviation of the data given below?

10, 28, 13, 18, 29, 30, 22, 23, 25, and 32.

A. 7.7

B. 7.0

C. 49.0

D. 6.2

Q9. The perimeter of a rectangle plot is 36 m. If the length is increased by 6m and the breadth is decreased by 3m, the area of the plot remains the same, what is the length of the plot?

A. 8 m

B. 6 m

C. 10 m

D. 12 m

Q10. Sarita wants to gift a stationery kit which includes a pencil, an eraser and a sharpener to some kids in her village. She went to a wholesaler for purchasing these items. The seller sells pencils in packing of 12, erasers in a packing of 18, and sharpeners in a packing of 10. She purchases the minimum number of packets of pencils, erasers and sharpeners so that a fixed number of kits can be prepared without any item being unused or short. What is the number of packets of pencils purchased by her?

*

A. 15

B. 18

C. 10

D. 12

Q11. A boat covers 56 km upstream in 7 hours and 48 km downstream in 4 hours. What is the speed of the boat in still water?

A. 10 kmph

B. 8 kmph

C. 4 kmph

D. 12 kmph

Q12. The length of a rectangle is 48 m and its perimeter is 150 m. What will be the perimeter of the square whose area is equal to this rectangle?

*

A. 128 m

B. 144 m

C. 324 m

D. 360 m

Q13. If x + y = 45, x - y = 11, what is the ratio of x:y?

*

A. 28:17

B. 17:28

C. 23:26

D. 25:24

Q14. In an examination 80% of the students passed in science, 70% in mathematics and 60% in both science and mathematics. If 65 students failed in both the subjects, what will be the total number of students?

A. 650

B. 3250

C. 6500

D. 1300

Q15. What is the mean of the mode and the median of the following data?

12, 28, 26, 27, 17, 16, 22, 25, 15, 16, 11

*

A. 16.5

B. 16

C. 17

D. 16.3

Q16. Mr. Raju travelled a certain distance at a certain speed. Had he moved 4 kmph faster, he would have taken 30 minutes less to cover the distance. If he had moved 2 kmph slower, he would have taken 30 minutes more to cover the distance. What is the distance travelled by him?

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A. 8 km

B. 4 km

C. 12 km

D. 9 km

Q17. If A and B can do a piece of work in 24 days, B and C can do it in 40 days, while A and C can do it 30 days. In how many days can A alone do it?

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A. 75 days

B. 60 days

C. 120 days

D. 40 days

Q18. The incomes of A and B are in the ratio 8:5, and their expenditures are in the ratio 13:7. If each saves Rs.3000 what is the expenditure of B?

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A. Rs.16000

B. Rs.13000

C. Rs.7000

D. Rs.10000

Q19. If 2 meter broad walkway is built around a garden 18 meters long and 12 meters wide. What will be the area of the walkway?

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A. 136m2

B. 64 m2

C. 154 m2

D. 104 m2

Q20. Mr. Ramu invested Rs. 9000 at a certain rate of interest compounded annually for three years. If it amounts to Rs. 10,890 at the end of second year, what will be the interest for the third year?

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A. Rs. 990

B. Rs. 1,331

C. Rs. 1,089

D. Rs. 1,210

Q1. What is the value of (a + b + c)^2 : (a^3 + b^3 + c^3) if (ab + bc + ca) = 131, (a^2 + b^2 + c^2) = 138 and abc = 280?

*

1 point

A. 15 : 43

B. 18 : 41

C. 20 : 49

D. 17 : 434

Q2. By which of the following is 19541742 divisible?

I. 11

II. 9

III. 12

*

1 point

A. Both I and III

B. Only III

C. Both II and III

D. Only I

Q3. Simplify

0.7 x 0.7 x 0.7 + 0.3 x 0.3 x 0.3 + 0.3 x 0.7 x 3

0.7 x 0.7 + 0.3 x 0.3 + 0.42

*

1 point

A. 1

B. 1/3

C. -⅓

D. 3

Q4. In an examination, 62% candidates passed in physics and 60% candidates passed in Mathematics. If 37% candidates passed in both these subjects, what percent of the candidates failed in both the subjects?

*

1 point

A. 5%

B. 20%

C. 25%

D. 15%

Q5. If price of petrol increases by 35% and Rajesh intends to spend only an additional 25% on petrol, by how much % will he reduce the quantity of petrol purchased? (Approx)

*

1 point

A. 14%

B. 9%

C. 11%

D. 13%

Q6. If 20% apples from a cart are rotten and the remaining apples are sold at 20% discount, the seller gets 92% profit on the cost price of the whole cart. By what percent above the cost price has the seller marked up the apples?

*

1 point

A. 180%

B. 250%

C. 200%

D. 280%

Q7. Selling an item at 5/6th of its marked price results in a loss of 10%. What is the % of profit/loss, if a discount of 5% is offered on the marked price?

*

1 point

A. 2.6% loss

B. 2.6% profit

C. 3% profit

D. 3% loss

Q8. The simple interest earned on a sum of Rs. 3650 at some rate after 4 years is Rs. 584. Find the rate of interest (in p.a.)

*

1 point

A. 3.5%

B. 4.5%

C. 3%

D. 4%

Q9. If a : b = 3 : 4, b : c = 2 : 3, c : d = 1 : 2, find the value of $((a+b+c+d)/(b+d))^{\frac{1}{2}}$

*

1 point

A. 5 : 4

B. 4 : 5

C. 1 : 1

D. 2 : 3

Q10. Which of the following statements is true?

I)27840 is divisible by 12

II) 7329753 is divisible by 9

*

1 point

A. Statement I is true, but II is not

B. Statement I is not true, but II is true

C. Both the statements are true

D. Both the statements are not true

Q11. What is the value of the following expression?

*

1 point

Captionless Image

A. 10

B. 12

C. 8

D. 9

Q12. A sum amounts to Rs. 16,000 at the end of three years and to Rs. 25,600 at the end of six years under compound interest (interest being compounded annually). Find the simple interest earned if the same sum is invested at 15% p.a. for two years.

*

1 point

A. Rs. 3,000

B. Rs. 4,000

C. Rs. 3,500

D. Rs. 4,500

Q13. A flask is filled with 20% acid. 49 ml of that solution is taken out and is replaced with 40% acid to make it a solution of 27% acid. Find the initial volume of the solution in the flask.

*

1 point

A. 140 ml

B. 175 ml

C. 70 ml

D. 105 ml

Q14. Disha and Patni entered into a partnership. Disha invested as much money as was earned by Patni a share from the profit. If the profit was Rs. 18,000 and the money invested by Disha was Rs. 3,000 more than Patni, What is the investment made by Disha if it is less than Rs. 5,000?

*

1 point

A. Rs. 4,500

B. Rs. 7,500

C. Rs. 6,000

D. Rs. 5,500

Q15. If the 9-digit number 807x6y9z8 is divisible by 99, then the value of (x + y + z)^½ is _____

*

1 point

A. 4

B. 3√3

C. 6

D. √5

Q16. Rahul and Sachin can complete a work in 60 days and 45 days respectively. Rahul starts working with 120% of his capacity and Sachin with 80% of his capacity. In how many days will they complete 75% of the work if they work together?

*

1 point

A. 25.71

B. 19.85

C. 17.64

D. 16.24

Q17. The ratio of the speed of a bus and a car is 2:5. The car covers a distance of 280 km in some time and the bus covers a distance of d km less in the same time. What is the distance covered by the bus?

*

1 point

A. 132 km

B. 168 km

C. 112 km

D. 144 km

Q18. A boat travels 12 km downstream and 6 km upstream in 3 hours. The same boat takes fifty percent extra time to cover 10 km downstream and 16 upstream. If the same boat travels 20 km downstream and z km upstream in 4 hours, find z.

1 point

A. 8 km

B. 4.5 km

C. 7.5 km

D. 9 km

Q19. Ranjeet's present age is half of his brother Manjeet's age after 10 years. After 5 years, the ratio of ages of Manjeet and Ranjeet will be 7 : 5. Find Ranjeet's age 2 years ago.

1 point

A. 25 yrs

B. 20 yrs

C. 15 yrs

D. 18 yrs

Q20. A plane is cutting a cone parallel to the base in such a way that the radius of the new cone is half of the radius of the original cone. Find the ratio of the volume of the original cone to that of the volume of the portion of the cone left after being cut by the plane (the part other than the new cone).

1 point

A. 8 : 7

B. 9 : 7

C. 7 : 6

D. 8 : 5

Q21. Find the geometric mean of the data 5, 75 and 9.

*

1 point

A. 15

B. 5

C. 45

D. 3

Q22. In a circular ground of radius 28m, the shaded portion area in the circle represents forest area while the remaining part of the circle is available for construction purposes. Find the area reserved for construction purpose (approx).

*

1 point

Captionless Image

A. 1764 m²

B. 3120 m²

C. 1850 m²

D. 2053 m²

Q23. Find the difference between arithmetic mean and median of the first seven consecutive natural numbers.

*

1 point

A. 1

B. 3.5

C. 2

D. 0

Q24. Find the quartile deviation of the observations 16, 2, 8, 24, 4, 32, 18.

*

1 point

A. 8

B. 12

C. 6

D. 10

Q25. The standard deviation of a series of 'n' observations is σ. If each observation is multiplied by 12, the respective ratio of the standard deviation and the variance is:

*

1 point

A. 1 : 9σ

B. 1 : 12σ

C. 3σ : 1

D. σ : 1

Q26. If the arithmetic mean of 23, 15, 19, p, 12, 7, is 16 while the arithmetic mean of 37, 28, 53, q, 42 is 41, then find (p+q)/(q-p)

*

1 point

A. 2.6

B. 2.2

C. 3.5

D. 3.2

Q1. A man has to travel 50 km in two hours. He could cover 20 km in one hour, and then had to stop for 10 minutes for refueling. By what factor should be increase his speed with reference to that during the first hour so as to be able to complete the journey as per schedule?

*

1 point

A. 1.2

B. 1.8

C. 2.4

D. 1.5

Q2. If n is an integer such that 1nn352 is a six-digit number exactly divisible by 24, what will be the sum of the possible values of n?

*

1 point

A. 15

B. 27

C. 9

D. 21

Q3. The diameter of a pizza is 30 cm. What is the area (in square cm) of the upper surface of a sector of the pizza whose arc length is 8 cm?

*

1 point

A. 120 * pi

B. 60

C. 60 * pi

D. 120

Q4. What is the mean proportional (MP) between the MPs of (2/7 & 32/343) and (2 & 1/5000)?

*

1 point

A. 3/35

B. 4/35

C. 2/35

D. 2/175

Q5. If (x+10)% of 240 is 60% more than x% of 180, then 15% of (x+20) is what percent less than 25% of x?

*

1 point

A. 16

B. 15

C. 15 ½

D. 19 1/21

Q6. A sum of Rs.30000 invested in a scheme where the interest gets compounded annually and grows to Rs. 51840 in three years. How much interest (in Rs.) would have got accrued in six months in the same scheme had the interest been compounded quarterly?

*

1 point

A. 3024

B. 3075

C. 3126

D. 2975

Q7. How much percentage is (0.025% of 240% of 1.5) of 0.9?

*

1 point

A. 0.01

B. 10

C. 0.1

D. 1

Q8. If the positive square root of ((90^0.5)+(80^0.5) is multiplied by (2^0.5 - 1), and the product is raised to the power of four, the result would be:

*

1 point

A. 1600

B. 11520000

C. 100

D. 10

Q9. What is the mean deviation of the data:

8,9,12,15,16,20,24,30,32,34?

*

1 point

A. 8

B. 10.2

C. 0

D. 9.2

Q10. An item was sold at a profit of 12% after giving a discount of 12.5% on the List Price. What would be the gain or loss percentage if a discount of 25% is given on the List Price?

*

1 point

A. 2.5% loss

B. 2.5% gain

C. 4% gain

D. 4% loss

Q11. What is the diameter in cm of a solid right circular cylinder whose height is 6 cm and the area of the curved surface is five times the combined area of the two flat surfaces?

*

1 point

A. 3

B. 2.4

C. 1.2

D. 0.9

Q12. Simplify 6 ⅓ + (5 ⅚ / 2 ⅓ - 2 ⅓ of 7 ½) + 13 ½

*

1 point

A. 6 ⅓

B. 5 ½

C. 4 ⅚

D. 5 ⅓

Q13. The Variation in temperature throughout the day in a desert town was studied on the basis of the records of the maximum and minimum temperatures which was 36 and 8 degree centigrade respectively. What was the standard deviation in degree centigrade?

*

1 point

A. 28

B. 22

C. 14

D. 12

Q14. The Collection of numbers which comprise the data given below is arranged in ascending order. (3,7,9, N - 1,15,18,19,20). If the median of the data is 12.5, what is the value of N?

*

1 point

A. 11

B. 12

C. 11.5

D. 10.5

Q15. A file of cadets consisting of ten rows and five columns measures 420m in length along the direction of their marching. How much time (in

hours and minutes) would it take to march for a stretch of 3 km, if the stride of each cadet is 80cm and he takes 57 strides per minute?

*

1 point

A. 1 hr 15 min

B. 1 hr 24 min

C. 1hr 10 min

D. 1 hr 20 min

Q16. 96 men were engaged for a project of constructing a railway track of the length of 18km in four weeks. After one week it was observed that the work of 4km was completed. How many additional men should be engaged for timely completion of the project?

*

1 point

A. 12

B. 16

C. 14

D. 15

Q17. X is four times as efficient as Y in respect of doing a particular work. Working together they complete the work in 16 days. In how many days Y, working alone, will be able to do half the work?

*

1 point

A.40

B.80

C.60

D.20

Q18. In a competitive exam, 5 marks are awarded for every correct answer and for every wrong answer, 2 marks are deducted. Sathwik and 32 marks in this examination. If 4 marks has been awarded for each correct answer and

1 mark had been deducted for each incorrect answer, Sathwik would have scored 34 marks.

If Sathwik attempted all the questions, how many questions were there in the test?

*

1 point

A. 20

B. 14

C. 12

D. 26

Q19. A sum invested on simple interest grows to Rs 22500 and Rs 25500 in seven and nine years respectively. What is the rate percentage of the interest?

*

1 point

A. 7.5

B. 9.6

C. 13.5

D. 12.5

Q20. What is the sum (in Rs) which, when divided among X, Y, Z in the proportion 3 : 5 : 7 provided Rs. 8000 more to Z than what it would have done to him when the proportion is 11 : 15 : 19?

*

1 point

A. 120000

B. 180000

C. 135000

D. 175000

Q21. What is the value of (0.0000128)^1/7?

*

1 point

A. 0.2

B. 5

C. 2

D. 0.5

Q22. After purchasing two copies of the same book, X sold them respectively at 0.8 and 1.4 times their cost prices. What was the percentage gain earned or loss incurred by X?

*

1 point

A. 5% gain

B. 10% gain

C. 5% loss

D. 10% loss

Q23. Two vessels X and Y of capacities one and two litres respectively are completely filled with mixtures of two chemicals A and B. The ratio by volume of the chemicals A and B in X and Y are 3:2 and 4:5 respectively. The contents of A and B are mixed and the combination is kept in a vessel C of capacity of four litres. How many litres of Chemical A should be added to the combination so as to make the ratio of A to B equal to 1:1?

*

1 point

A. 1/135

B. 1/67

C. 1/68

D. 1/270

Q24. The marks scored by a student out of 100 in English and Mathematics at four consecutive monthly tests held in 2019 are presented through a Bar Graph shown below. In each case the marks is a multiple of five.

In which month is the difference of marks scored in the two subjects are highest?

*

1 point

Captionless Image

A. Apr

B. Mar

C. Feb

D. Jan

Q25. The mean of set data is 5. What will be the mean if 10 is subtracted from each data.

*

1 point

A. 5

B. 10

C. -5

D. -15

Q26. If 5^X3^Y = 225 x 405, find the value of X^(2Y-3X)

*

1 point

A. 81

B. 27

C. 125

D. 25

1. A team of 12 is needed to be formed who are to be selected from 7 men and 12 women, with the restriction of selecting not more than 3 men. In how many ways can the selection be done?

*

9171

8243

7835

9967

2. George can do some work in 8 hours, Paul can do the same work in 10 hours while Hari can do the same work in 12 hours. All the three of them start working at 8 a.m. while George stops works at 10 a.m. and remaining two complete the work. Approximately at what time will the work be finished?

*

12 noon

1 pm

12:30 pm

11:30 am

3. X: 100 500 1000 1500

   f: 14 26 6 20

Find median

*

450

550

500

None of these.

4. A pupil's marks were wrongly entered as 83 instead of 63. Due to that the average marks for the class got increased by half (1/2). The number of pupils in the class is:

*

10

20

40

5. The difference between the ages of two of my three grandchildren is 3. My eldest grandchild's age is three times than the age of my youngest grandchild and my eldest grandchild's age is two years more than the ages of my two youngest grandchildren added together. How old is my eldest grandchild?

*

15

12

13

10

6. There are 4 different letters and 4 addressed envelopes. In how many ways can the letters be put in the envelopes so that atleast one letter goes to the correct address?

*

15

16

18

12

7. A cuboidal ice-cream bar have a length, breadth and thickness of 3 cm, 5 cm and 2 cm respectively. Suppose both length and breadth decrease by the same percentage and the thickness remains the same. As a result volume is reduced by 19%. What is the new breadth?

*

7.5

5.5

4.5

3.5

8. Find mean deviation from median

X: 0-10 10-20 20-30 30-40

f: 5 8 14 13

*

7.75

7.25

8.25

8

9. The average score in Mathematics of a class increases by 10% if the total marks secured by a number of students who form 20% of the class strength and whose average score is 48 is not included in the calculation. What is the average score?

*

90

60

75

80

10. How many words can be formed using the letters of the word DAUGHTER, so that all the vowels occurs together?

*

8640

4320

6720

5320

11. Colonel , General & Major started a work together for 816 Rs. Colonel & Major did 8/17 of the total work, while Major & General together did 12/17 of the whole work. What is the amount of the least efficient worker.

*

164

288

144

234

12. Find the standard deviation 240, 260, 290, 245, 255

*

17

18

17.49

18.75

13. A merchant buys 20 kg of wheat at Rs.30 per kg and 40 kg of wheat at Rs.25 per kg. He mixes them and sells one third of the mixture at Rs.26 per kg. the price at which the merchant should sell the remaining mixture so that he may earn a profit of 25% on his whole outlay is:

*

30

40

36

37

14. A boy buys 18 sharpeners (brown or white) for Rs.100. For every white sharpener, he pays one rupee more than the brown sharpener. What is the cost of white sharpener and how much did he buy?

*

5, 13

5, 10

6, 10

None of these

15. The ratio of efficiency of A is to C is 5:3.The ratio of no. of days taken by B is to C is 2:3. A takes 6 days less than C, when A and C completes the work individually. B and C left the work after 2 days. Find the no of days taken by A to finish the remaining work?

*

4.5

5

6

28/3

1. Mr. Raju travelled a certain distance at a certain speed. Had he moved
4 kmph faster, he would have taken 30 minutes less to cover the distance.
If he had moved 2 kmph slower, he would have taken 30 minutes more to
cover the distance. What is the distance travelled by him?

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1 point

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*

1 point

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B. 64 m2

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5. Mr. Ramu invested Rs. 9000 at a certain rate of interest compounded annually for three years. If it amounts to Rs. 10,890 at the end of second year, what will be the interest for the third year?

*

1 point

A. Rs. 990

B. Rs. 1,331

C. Rs. 1,089

D. Rs. 1,210

6. The perimeter of a rectangle plot is 36 m. If the length is increased by 6m and the breadth is decreased by 3m, the area of the plot remains the same, what is the length of the plot?

*

1 point

8m

6m

10m

12m

7. The population of a town is 1,21,000. If it increases at the rate of 10% per annum, what is the difference between the population 3 years hence and that of 2 years ago?

*

1 point

A. 61251

B. 61055

C. 61051

D. 62041

8. A sells an article to B at a profit of 15%. B then sells it to C, making a profit of 20%. If C paid Rs. 690 What is the original price of the article?

*

1 point

A. 700

B. 500

C. 575

D. 690

9. . If the area of the base of a right circular cone is 9856 cm2 and its height is 33 cm, what is the curved surface area of the cone?

*

1 point

A. 12420 cm2

B. 21040 cm2

C. 11440 cm2

D. 12000 cm2

10. A motorbike starts at the speed of 60 kmph with its speed increasing by 12 kmph every three hours. In how many hours will it cover 480 km?

*

1 point

A. 8 hours

B. 6 hours, 30 minutes

C. 7 hours

D. 6 hours

11. The difference between the simple interest and the compound interest calculated annually on a certain amount at the rate of 20% per annum for 2 years is Rs. 248.20. What is the amount?

*

1 point

A. 6205

B. 6002

C. 6022.5

D. 6202.5

12. If a perimeter of a rectangle is 82 cm and its diagonal is 29 cm long, what is the area of the rectangle?

*

1 point

A. 400cm2

B. 420 cm2

C. 441 cm2

D. 900 cm2

13.

*

1 point

Captionless Image

A. 25

B. 5

C. 30

D. 35

14. A, B and C enter into a partnership by investing in the ratio of 4 : 3 : 5. After six months, B invests another Rs. 2,64,000 and C invests Rs. 5,40,000 at the end of two years also invests. At the end of the three years, profits are shared in the ratio 3 : 5 : 6. What is the initial investment of A?

*

1 point

A. Rs. 3,00,000

B. Rs. 1,80,000

C. Rs. 2,70,000

D. Rs. 2,40,000

15.

*

1 point

Captionless Image

A. 98

B. 90

C. 27

D. 91

16.

*

1 point

Captionless Image

A. 6

B. 1.6

C. 2.6

D. 3.6

Q1. The average of 19 numbers is 42. The average of the first 6 numbers is 38.5 and that of the last 14 numbers is 45.5. If the sixth number is excluded then what's the average of the remaining numbers?(Correct to one decimal Place)

*

1 point

A. 41.2

B. 41.6

C. 40.8

D. 40.4

Q2. A fraction becomes 2 / 3 if 1 is added to its numerator and 2 is added to its denominator . If 2 is subtracted from the numerator and 5 is added to its denominator, the fraction becomes 1 / 4, If 3 is added to the numerator and 1 is subtracted from the denominator, then fraction becomes:

*

1 point

A. 3 / 4

B. 6 / 5

C. 4 / 3

D. 5 / 7

Q3. A certain sum was invested at 20% p.a. for a year such that the interest was compounded half yearly for the first year and compounded yearly for the next year. If get on the sum was Rs.10,170 then the sum (in Rs) was:

*

1 point

A. 25,000

B. 24,500

C. 24,000

D. 22,500

Q4. 15 men and 20 boys can complete a work in 15 days, 20 men and 35 boys can complete the same work in 10 days. Determine the efficiency of boys with respect to men.

*

1 point

A. 1.5 : 1

B. 2 : 1

C. 1 : 2

D. 1 : 1.5

Q5. A and B are coming from opposite directions. A starts at 10 a.m. towards B. B starts at 11 a.m. towards A. The speed of A and B are 40 km/hr and 50 km/hr, respectively. At what time will they meet each other, if A and B are 100 km apart?

*

1 point

a)11.50 a.m.

b)12.00 p.m.

c)11.40 a.m.

d)10.40 a.m.

Q6. 25 numbers were recorded and their average was calculated as 50.6. Later it was found that three numbers 29, 35, and 72 were wrongly taken as 92, 53 and 27 respectively, and one number 58 was inadvertently left out from being recorded. What is the correct average of all the numbers?

*

1 point

A. 48.2

B. 48.7

C. 50.5

D. 49.5

Q7. A sum of Rs. x was lent at 10% p.a. for 4 years, interest compounded annually. If the difference between the compound interest for the fourth year and the third year is Rs. 847, then what is the value of x?

*

1 point

A. 63,000

B. 77,000

C. 70,000

D. 66,000

Q8. A bag contains z+2 black balls, z+5 red balls and z+8 white balls . The probability of getting a black ball is ¼, what is the probability of getting three red balls of different colour, when three balls are drawn?

*

1 point

A. 45/119

B. 36/119

C. 27/119

D. 23/119

Q9. Rajesh can complete a job in 18 days. Rohit is 50% more skilled than Rajesh. Find the total time taken to do the same job when they both work together.

*

1 point

A. 7.4 days

B. 7.2 days

C. 7.10 days

D. 7.0 days

Q10. An article is sold at 15% profit by giving a discount of 17.2%. The marked price of the article is Rs.5,000. Determine its cost price.

*

1 point

A) 5,095

B) 36,000

C) 3,600

D) 6,995

Q11. Cost of 5 pens and 7 notebooks is Rs 224. If the cost of a pen is increased by Rs 2 and notebook is reduced by 3 then the cost of 3 pen and 4 notebook is Rs 124. What is the original cost of 4 Pen and 3 notebooks ?

*

1 point

A) 144

B) 121

C) 127

D) 122

Q12. The amount obtained by Sumit by investing a sum of Rs 10,920 for 3 years at the rate of 10% simple interest is equal to the amount obtained by Raghav by investing a certain sum in Rs for 5 years at the rate of 8% per annum SI.

What is 85% of the sum invested by Raghav?

*

1 point

A) 8519

B) 8619

C) 8591

D) 8692

PART-B (ADVANCED REASONING ABILITY)

16 QUESTIONS, 20 MINS

1. Consider the series A9GCDE5KP. If every letter in the series represents a number and the sum of any three consecutive terms in the series is 20, what number does P stand for?

6

9

5

8

Option 5

2. A frog is in the bottom of a 20m deep well. Every day it jumps 5 metres upwards and falls 4 metres down. How many days will it take for the frog to get out of the well?

16

20

15

19

3. Three runners A, B and C run a race, with runner A finishing 24 meters ahead of B and 36meters ahead of C, while runner B finishes 16 meters ahead of run C. Each runner travels the entire distance at a constant speed. What was the length of race?

72 m

93 m

120m

144 m

4. A train starts full of passengers. At the first station, it drops one-third of the passengers and takes 280 more. At the second station, it drops one-half of the new total and takes 12 more. On arriving at the third station, it is found to have 248 passengers. Find the number of passengers in the beginning.

240

248

280

288

5. Elephant competitions are of great entertainment value in south India. In one such competition held in Cochin, 200 elephants participated. Each elephants was given equal amount of milk to drink for a certain time period. Whichever elephant could drink the maximum would be the winner. One of the elephants named Garru could drink 1/3 of the amount of milk offered. Another elephant named Marta could drink only 1/20 of the amount of milk offered, but it was better than Thorny which could drink 2/45 of the amount of milk offered. Amazingly Darru could drink 6 litres more than 1/4 of the amount of milk offered, where as Malar could drink 2/15 of the amount of milk offered.

If the amount of milk left over by the elephants Garru and Darru were same, then calculate the total amount of milk offered to each elephant.

1 point

72 L

76 L

78 L

80 L

6. Find the number of zeros in the expression 15*32*25*22*40*75*98*112*125

1 point

7

12

9

14

7. Find The Sum of All 4-Digit numbers, that can be formed from the digits 0, 1, 3, 4, 5 without repetition.

1 point

259974

337974

346632

334554

8. Ramu our intrepid traveler goes to Egypt and is dazzled by its sphinxes and pyramids. At one such pyramid in Giza, he reads the inscription, "This pyramid was originally 28 levels tall with 4 faces". The pyramids are constructed by cubical blocks of rocks such that, on any face, the number of rocks at each level is one less than the level below it. He counts the number of rocks on one of the faces to be 100. Can you help Ramu find out how many levels have been lost over the last 4000 years due to the ravages of time?

1 point

23rd

24th

25th

26th

9. The actual question is "In subtraction problem below, letters replace some single digits (not necessarily distinct).

Find the value of 7*A+5*B+6*C*D=?"

the equations are

A 5 C 1

-3 B 7 9

‾‾‾‾‾‾‾‾

3 9 7 D

‾‾‾‾‾‾‾‾

1 point

95

96

97

98

10. There are 10 stepping stones numbered 1 to 10 as shown at the side. A fly jumps from the first stone as follows; every minute it jumps to the 4th stone from where it started - that is from 1st it would go to 5th and from 5th it would go to 9th and from 9th it would go to 3rd etc. Where would the fly be at the 60th minute if it starts at 1?

11) 1, 2, 2, 3, 3, 3, 4, 4, 4, 4, 1, 1, 2, 2, 2, 2, 3, 3, 3, 3, 3, 3, 4, 4, 4, 4, 4, 4, 4, 4, 1, 1, 1, 2, 2, 2, 2, 2, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 4......

In the above sequence what is the number of the position 2888 of the sequence.

1 point

1

4

3

2

12. Professor nitwit obtains a hash number of a given positive integer > 3 as follows. He subtracts 2 from the number (to get the new number), and multiplies the new number by 2 to get a term. He repeats this with the new number (to get newer numbers and terms) until the number become 2 or 1. The hash is defined as the sum of all the numbers generated in the process.

For example, with the number 5, he multiples (5-2 = 3) by 2 to get the first term 6. He multiplies (3 - 2 = 1) by 2 to get the second term 2. As the number has become 1, he stops. The hash is the sum of the two numbers (6+2) = 8.

If Professor Nitwit is given 3 numbers 19, 7, 15, what is the sum of the hash numbers he obtains for the three numbers?

1 point

297

273

290

278

13. Overfishing is a serious environmental issue. It has been determined by the scientists that if the net of a trawler has mesh size x cm (a square mesh), then the percentage of fish entering the net that are caught in the net is (100 - 0.04x^2- 0.24x). For example, if the mesh size is zero, 100% of the fish that enter the net will be caught. A trawler with net with a square mesh, that was suspect of using an illegal size net, dropped its net to the ocean floor near the Andamans and the coast guard, officials arrested the crew. The scientists later looked the size of the fish caught, and estimated that for the net used by the trawler, at least 97.8% of the fish entering the net would be caught. What is the maximum value of x for the net used by the trawler?

1 point

5

4.5

7

6

14. A circle has 11 points arranged in a clockwise manner numbered from 0 to 10. A bug moves clockwise around the circle according to the following rule. If it is at a point i on the circle, it moves clockwise in 1 second by (1+r) places, where r is the remainder (Possibly 0) when i is divided by 2. Thus if it is at position 5, it moves clockwise in one second by (1+1) places to point 7. Similarly, if it is at position 10 it moves (1+0) or 1 places to point 0 in one second.

If it starts at point 4, at what point will it be after 2012 seconds?

1 point

7

9

5

1

15. In a group of 5, Anooj said "One of us is lying". Pooja said "Exactly two of us are lying". Bittoo said, "Exactly three of us are lying". Billa said, "Exactly four of us are lying". Chitra said, "Exactly five of us are lying". Which one said the truth?

1 point

Billa

Anooj

Chitra

Pooja

Bitto

16. Asha and Eesha – Eesha lies on Monday, Tuesday and Wednesday. Asha lies on Thursday, Friday and Saturday. Other days they will say the truth. Professor forgot and asked them what day it is. Both of them said yesterday I was lying and then professor got the day. What day it is?

1 point

Tuesday

Thursday

Friday

None