

## Quant Mega Quiz for SSC CGL Tier - 2

Q1. A boat is moving away from an observation tower. It makes an angle of depression of 60° with an observer's eye when at a distance of 50m from the tower. After 8 sec, the angle of depression becomes 30°. By assuming that it is running in still water, the approximate speed of the boat is

- (a) 33 Km/hr
- (b) 42 Km/hr
- (c) 45 Km/hr
- (d) 50 Km/hr

Q2. Ratio of the number of sides of two regular polygons is 5:6 and the ratio of their each interior angle is 24 : 25. The number of sides of these two polygons are

- (a) 10, 12
- (b) 20, 24
- (c) 15, 18
- (d) 35, 42

Q3. I is the incentre of a triangle ABC. If 2ACB = 55°. 2ABC = 65° then the value of 2BIC is

- (a) 130°
- (b) 120°
- (c) 140°
- (d) 110°

Q4. AB and CD are two parallel chords of a circle lying on the opposite side of the center and the distance between them is 17 cm. The length of AB and CD are 10 cm and 24 cm respectively. The radius (in cm) of the circle is

- (a) 13
- (b) 18
- (c) 9
- (d) 15

Q5. A cricketer has a mean score of 60 runs in 10 innings. Find out how many runs are to be scored in the eleventh innings to raise the mean score to 62?

- (a) 83
- (b) 82
- (c) 80
- (d) 81



Q6. If there is a reduction in the number of workers in a factory in the ratio 15 : 11 and an increment in their wages in the ratio 22 : 25, then the ratio by which the total wage of the workers should be decreased is

(a) 6 : 5

(b) 5 : 6

(c) 3 : 7

(d) 3 : 5

Q7. If a man receives on one-fourth of his capital 3% interest, on two third 5% and on the remaining 11%, the percentage he receives on the whole is:

(a) 4.5%

(b) 5%

(c) 5.5%

(d) 5.2%

Q8. A sum of money placed at compound interest double itself in 4 years. In how many years will it amount to four times itself?

(a) 12 year

(b) 13 year

(c) 8 year

(d) 16 year

Q9. x does 1/4 of a job in 6 days y completes rest of the job in 12 days. Then x and y could complete the job together in

- (a) 9 days (b)  $8\frac{1}{8}$  Days
- (c)  $9\frac{3}{5}$  days
- (d)  $7\frac{1}{3}$  days

Q10. 2 men and 3 boys can do a piece of work in 10 days while 3 men and 2 boys can do the same work in 8 days. In how many days can 2 men and 1 boy do the work?

- (a) 8 days
- (b) 7 days
- (c)  $12\frac{1}{2} days$
- (d) 2 days

## **Q11.** The greatest of $\sqrt{2}$ , $\sqrt[6]{3}$ , $\sqrt[3]{4}$ , $\sqrt[4]{5}$ is.

- (a) √2
- (b) ∜3
- (c) <sup>3</sup>√4
- (d) ∜5
- (u) ···

Q12. The digit in the unit's place of  $\{(251)^{98} + (21)^{59} - (106)^{100} + (705)^{35} - 164 + 259\}$  is:

- (a) 1
- (b) 4
- (c) 5
- (d) 6

Q13. It is given that  $(2^{32} + 1)$  is exactly divisible by a certain number. Which of the following is also definitely divisible by the same number?

- (a) 2<sup>16+1</sup>
- (b) 2<sup>16-1</sup>
- (c)  $7 \times 2^{33}$
- (d) 2<sup>96+1</sup>

**Q14.** Solve 
$$\left(\frac{\sqrt{7}+\sqrt{5}}{\sqrt{7}-\sqrt{5}}\right)^2 + \left(\frac{\sqrt{7}-\sqrt{5}}{\sqrt{7}+\sqrt{5}}\right)^2$$
  
(a) 136  
(b) 138  
(c) 140  
(d) 142

Q15. If the expression  $x + 809436 \times 809438$  be a perfect square, then the value of x is

- (a) 0
- (b) 1
- (c) 809436
- (d) 809438

**Q16.** What are the factors of  $\left(\frac{1}{3}x^2 - 2x - 9\right)$ ?

(a) 
$$\frac{1}{3}(x-9)(x+3)$$
  
(b)  $\frac{1}{3}(x-9)(x-3)$   
(c)  $\frac{1}{3}(x+9)(x+3)$   
(d)  $\frac{1}{3}(x+9)(x-3)$ 

Q17. The smallest number, which should be added to 665785 so as to obtain a multiple of 11.

- (a) 0
- (b) 1
- (c) 3
- (d) 5



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Q18. The product of two numbers is 64. If one number equals. "The number of legs of a dog plus number of hours is a day divided by the number of days in a week". Then the other number is

(a) 8

(b) 16

(c) 2

(d) 4

Q19. If  $\frac{\sqrt{5+x}+\sqrt{5-x}}{\sqrt{5+x}-\sqrt{5-x}} = 5$ , then find the value of x. (a)  $\frac{25}{11}$ (b)  $\frac{13}{25}$ (c)  $\frac{25}{13}$ (d)  $\frac{11}{25}$ 

Q20. On dividing a certain number by 476 we get 67 as remainder. If the same number is divided by 24, what will be the remainder?

(a) 19

(b) 18

(c) 17

(d) Can't be determined

Q21. A and B have some guavas divided among themselves. A says to B "If I give you 25% of the guavas I have, I will still have 2 more guavas than you have." To this, B says "If you give me guavas equal to 70% of what I have now, I will have 4 more guavas than you have." What is the total number of guavas that they have?

(a) 80

(b) 64

(c) 36

(d) 88

Q22. The annual earning of Mr. Sikkawala is Rs. 4 lakhs per annum for the first year of his job and his expenditure was 50%. Later on for the next 3 years his average income increases by Rs. 40,000 per annum and the saving was 40%, 30% and 20% of the income. What is the percent of his total savings over the total expenditure if there is no any interest is applied on the savings for these four years:

(a)  $49\frac{37}{87}\%$ 

(b) 
$$41\frac{73}{83}$$
%

- (c) 53%
- (d) None of these

Q23. A, B, C and D purchased a cine-multiplex for Rs. 56 lakhs. The contribution of B, C and D together is 460% that of A, alone. The contribution of A, C and D together is 366.66% that of B's contribution and the contribution of C is 40% that of A, B and D together. The amount contributed by D is:

- (a) 10 lakh
- (b) 12 lakh
- (c) 16 lakh
- (d) 18 lakh

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Q24. Ram prepares solutions of alcohol in water according to

customers' needs. This morning Ram has prepared 27 litres of a 12% alcohol solution and kept it ready in a 27 litre delivery container to be shipped to the customer. Just before delivery, he finds out that the customer had asked for 27 litres of 21% alcohol solution. To prepare what the customer wants. Ram replaces a portion of 12% solution by 39% solution. How many litres of 12% solution are replaced?

- (a) 5
- (b) 9
- (c) 10
- (d) 12

Q25. My friend Siddhartha Ghosh is working in the Life Insurance Corporation of India (LIC). He was hired on the basis of commission and he got the bonus only on the first years commission. He got the policies of Rs. 2 lakh having maturity period of 10 year. His commission in the first, second, third, fourth and for the rest of the years is 20%, 16%, 12%, 10% and 4% respectively. The bonus is 25% of the commission. If the annual premium is Rs. 20,000 then what is his total commission if the completion of the maturity of all the policies is mandatory:

- (a) Rs. 174,00
- (b) Rs. 23,600
- (c) Rs. 15,000
- (d) Rs. 15,500

Q26. Mr. Amar spends 50% of his monthly income on household items and out of the remaining he spends 25% on travelling, 30% on entertainment, 15% on shopping and remaining amount of Rs. 900 is saved. What is Mr. Amar's monthly income?

- (a) Rs. 6,000
- (b) Rs. 12,000
- (c) Rs. 9,000
- (d) Cannot be determined

Q27. In a test consisting of 80 questions carrying one mark each, Ankita answers 65% of the first 40 questions correctly. What percent of the other 40 questions does she need to answer correctly to score 80% on the entire test?

- (a) 60
- (b) 80
- (c) 95
- (d) 40

Q28. In a class of 60 students and 5 teachers, each student got sweets that are 20% of the total number of students and each teacher got sweets that are 30% of the total number of students. How many sweets were there?

- (a) 845
- (b) 897
- (c) 810
- (d) 104

Q29. In a college election fought between two candidates, one candidate got 55% of the total valid votes. 15% of the votes were invalid. If the total votes were 15,200, what is the number of valid votes the other candidate got?

- (a) 7106
- (b) 6840
- (c) 8360
- (d) 5814

Q30. On a test consisting of 250 questions, John answered 40% of the first 125 questions correctly. What percent of the other 125 questions does she need to answer correctly for her grade on the entire exam to be 60%?

- (a) 75
- (b) 80
- (c) 60
- (d) Cannot be determined

