

Quant Mega Quiz for SSC CGL Tier - 2

Q1. In a solution of water and sugar, the ratio of sugar to water is 3 : 5. If 30% of this solution is taken out and 5% of the initial quantity of solution is added as water to the remaining quantity of the mixture then find the new ratio of sugar and water in the solution.

(a) 6 : 13

(b) 3 : 7

(c) 7:13

(d) 4 :7

Q2. A and B invest in the ratio of 3 : 5. After 6 months, C joins the business by investing some amount. At the end of the year, the profit share of B and C are equal. Find initial investment of A is what percent of the initial investment of C.

(a) 24%

(b) 36%

(c) 60%

(d) 30%



Q3. The ratio of speed of boat in still water to the speed of stream is 5 : 3. A boat takes total 12 hours to go 48 km in upstream and same distance in downstream. Find the speed of boat is still water.

(a) 5 km/h

(b) 7 ½ km/h

(c) 10 km/h

(d) 12 ½ km/h

Q4. The simple interest received on a sum of Rs.12,600 at the rate of 8% in T years is Rs. 5040. Find the CI received on the same sum in (T-3) years at the rate of $16\frac{2}{3}\%$ p.a. compounded annually.

(a) Rs. 4550

(b) Rs. 4650

(c) Rs. 4450

(d) Rs. 4750



Q5. Ratio of present age of A, B, C and D is 6 : 8 : 11 : 15 . Sum of their ages 4 years before was 64 years then what is the difference of present age of B and D.

- (a) 8 years
- (b) 14 years
- (c) 4 years
- (d) 22 years

Q6. Ratio of radius to height of a cylinder is 1 : 8. If the height of cylinder is reduced by 12 ½ % then find percentage change in total surface area of cylinder.

- (a) $11\frac{1}{9}\%$ decrease
- (b) $12\frac{1}{2}\%$ decrease
- (c) 18% decrease
- (d) 8% decrease

Q7. The average weight of boys in a class of total strength 50 is 40 kg while average weight of girls is 35 kg. Find number of girls in class if average weight of class is 38 kg.

(a) 10 (b) 30 (c) 20 (d) 40

Q8. A shopkeeper marked up his article 45% above the CP and allows a two successive discount of 15% and 12% on it. He realized that he made a profit of Rs126.9. Find the SP when he wants to earn 15% profit.

- (a) Rs. 1695
- (b) Rs. 1750
- (c) Rs. 1675
- (d) Rs. 1725

Q9. A and B together decided to dig a well in 7.5 days while working 4 hours in a day. But due to tiredness their efficiency decreases by 50% in every hour in a day and they started every day with full energy. Now find in how many days well will be dig?

- (a) 15 days
- (b) 16 days
- (c) 20 days
- (d) 21 days

Q10. At a point on level ground, the angle of elevation of a vertical tower is found to be such that its tangent is $\frac{5}{12}$. On walking 192 meters towards the tower, the tangent of the angle is found to be

 $\frac{3}{4}$. Find the height of the tower.

(a) 160 m

(b) 140 m

(c) 180 m

(d) 210 m

Q11. A man makes 80 articles in the 1st hour. His efficiency decreases by 25% in the 2nd hour, increases by 40% in the 3rd hour, decreases by 33 $\frac{1}{3}$ % in the 4th hour and increases by 14 $\frac{2}{7}$ % in the

5th hour (his efficiency increases or decreases with respect to the efficiency in previous hour). If he works for 5 hours, then find the average of total article made by the man in 5 hours.

(a) 70

(b) 67.5

(c) 68.8

(d) 66.7

Q12. 150 workers were engaged to finish a piece of work in a certain number of days. Four workers dropped on the second day, four more workers dropped on third day and so on. It takes 8 more days to finish the work now, find the number of days in which the work was completed?

- (a) 28
- (b) 24
- (c) 25
- (d) 30

Q13. A contract is to be completed in 50 days and 105 men were set to work, each working 8 h a day. After 25 days, 2/5th of the work is finished. How many additional men be employed, so that the work may be completed on time, each man now working 9 h a day?

- (a) 34
- (b) 36
- (c) 35
- (d) 37

Q14. A manufacturer sells an article to a wholesale dealer at a profit of 10%. The wholesale dealer sells it to a shopkeeper at 20% profit. The shop-keeper sells it to a customer for Rs 56,100 at a loss of 15%. Then the cost price of the article to the manufacturer is

(a) Rs. 25,000
(b) Rs. 10,000
(c) Rs. 50,000
(d) Rs. 55,000



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Q15. The value of x in the equation $\frac{113 \times 4 - x \times 2}{13 \times 9 - 5 \times 7} = 5$ is (a) 21 (b) 27 (c) 35 (d) 42 Q16. $\frac{180 \times 15 - 12 \times 20}{140 \times 8 + 2 \times 55} = ?$ (a) 1/7 (b) 4/5 (c) 2 (d) 4 Q17. If $\sqrt{10 + \sqrt{24} + \sqrt{40} + \sqrt{60}} = \sqrt{p} + \sqrt{q} + \sqrt{r}$ then value of p + q + r is : (a) $\sqrt{10}$ (b) 10 (c) 11 (d) $\sqrt{15}$ **Q18.** If $a + a^2 + a^3 - 1 = 0$, then what is the value of $a^3 + (1/a)$ (a) 1 (b) 4 (c) 2 (d) 3 Q19. If $x + \frac{1}{x} = \sqrt{3}$, then $x^{48} + x^{(378/7)} + x^{(726/11)} + x^{60}$ is equal to: (a) 1 (b) 0 (c) -1 (d) 2 **Q20.** If $\frac{x}{a} = \frac{y}{b} = \frac{z}{c}$, then $\frac{ax-by}{(a+b)(x-y)} + \frac{by-cz}{(b+c)(y-z)} + \frac{cz-ax}{(c+a)(z-x)} = ?$ (a) 0 (b) 2 (c) 1 (d) 3

Q21. Mr. Ramesh opened a workshop investing Rs. 40,000. He invested additional amount of Rs10,000 every year. After two years his brother Suresh joined him with an amount of Rs. 75,000. Thereafter Suresh did not invest any additional amount. On completion of four years from the opening of workshop they earned an amount of Rs. 3,70,000. What will be Ramesh's share in the earning?

(a) Rs. 85,000

(b) Rs. 1,10,000

(c) Rs. 1,35,000

(d) Rs. 2,20,000



Q22. Two partners invested Rs. 50,000 and Rs. 70,000 respectively in a business and agreed that 70% of the profits should be divided equally between them and the remaining profit in the ratio of investment. If one partner gets Rs. 90 more than the other, find the total profit made in the business.

(a) Rs. 1200

(b) Rs. 1400

- (c) Rs. 1600
- (d) Rs. 1800

Q23. A, B and C start a partnership. A invests certain sum, B invests the double amount after 6 months and C invests three times the amount after 8 months. What will be C's share if the profit is Rs. 36,000 at the end of the year? aooa 24

- (a) Rs. 12,000
- (b) Rs. 9,002
- (c) Rs. 9,287
- (d) Rs. 9,820

Q24. A metallic hemisphere is melted and recast in the shape of cone with the same base radius (R) as that of the hemisphere. If H is the height of the cone, then:

(a) H = 2R(b) H = $\frac{2}{3}$ R (c) H = $\sqrt{3R}$ (d) B = 3R

Q25. Two circles with centre A and B and radius 2 units touch each other externally at 'C'. A third circle with centre 'C' and radius '2' units meets other two at D and E. Then the area of the quadrilateral ABDE is

(a) $2\sqrt{2}$ sq. units (b) $3\sqrt{3}$ sq. units (c) $3\sqrt{2}$ sq. units

(d) $2\sqrt{3}$ sq. units

Q26. A saleable article passes successively in the hands of three traders. Each trader sold it further at a gain of 25% of the cost price. If the last trader sold it for Rs. 250 then what was the cost price for the first trader?

(a) Rs. 128

(b) Rs. 150

(c) Rs. 192

(d) Rs. 200

Q27. A labourer was appointed by a contractor on the condition he would be paid Rs75 for each day of his work but would be, fined at the rate of Rs15 per day for his absent. After 20 days, the contractor paid the labourer Rs1140. The number of days the labourer absented from work was

(a) 3 days

(b) 5 days

(c) 4 days

(d) 2 days

Q28. The average monthly income of P and Q is Rs. 5,050. The average monthly income of Q and R is Rs. 6,250 and the average monthly income of P and R is Rs. 5200. The monthly income of P is:

(a) Rs. 3,500

(b) Rs. 4,000

(c) Rs. 4,050

(d) Rs. 5,000



(a) 42%

(b) 56%

(c) 66%

(d) None of these

Q30. Two vessels contain equal quantities of 40% alcohol. Anil changed the concentration of the

first vessels to 50% by adding extra quantity of pure alcohol. Balu changed the concentration of the second vessels to 50% by replacing a certain quantity of the solution with pure alcohol. By what percentage is the quantity of alcohol added by Anil more than that replaced by Balu?

(a) 20%

(b) 25%

- (c) 40%
- (d) Cannot be determined

