

SSC CGL T-I Quant Section Test 01

Q1. The value of $\frac{(0.29 \div 0.32) \times 6.6}{0.95 \div 1.05 \times 1.2}$ is

- (a) 4.5
- (b) 5.2
- (c) 5.4
- (d) 6.3

Ans.(c)

Q2. In a town, the present number of employed people is 40,000. If the number of employed men decreases by 4% and the number of employed women increases by 12%, the total employed population becomes 40,480. What is the present number of employed men?

- (a) 20,000
- (b) 22,000
- (c) 27,000
- (d) 26,000

Ans.(c)

Q3. A number increased by 16.66 percent, 14.28 percent, 9.09 percent and 11.11 percent respectively and after it decreased by 12.5 percent, 8.33 percent, 14.28 percent and 10 percent respectively. Find the total (approximate) change in percentage.

- (a) 10 percent
- (b) 20 percent
- (c) 30 percent
- (d) 0 percent

Ans.(d)

Q4. The solution of the following system of equations:

$$2(ax - by) + a + 4b = 0,$$

$$2(bx + ay) + b - 4a = 0,$$

is also the solution of the equation:

- (a) $2x - 3y = 6$
- (b) $3x + 4y = 59$
- (c) $3x - 2y = 5$
- (d) $4x + 3y = 4$

Ans.(d)

Q5. If $\cot \varphi + \tan \varphi = 4$ and φ is an acute angle, find the value of $\cot^3 \varphi + \tan^3 \varphi$.

- (a) 52
- (b) 56
- (c) 60
- (d) 64

Ans.(a)

Q6. Rajesh started a business by investing ₹1,00,000. After 5 months, Suresh joined with ₹1,50,000. At the end of 7 months from the start, Tushar joined with ₹2,00,000. If the total profit is ₹1,50,000 at the end of the year, find the share of Tushar(approximate) .

- (a) ₹55,000
- (b) ₹46,154
- (c) ₹45,250
- (d) ₹35,500

Ans.(b)

Q7. In $\triangle ABC$, two medians AD and BE intersect at G at right angles. If AD = 12 cm and BE = 9 cm, then the length of AB is equal to:

- (a) 14 cm
- (b) 16 cm
- (c) 12 cm
- (d) 10 cm

Ans.(d)

Q8. The ratio of the numbers of ₹10 notes, ₹20 notes and ₹50 notes in a box is given as 3 : 5 : 7. The total amount of cash in the box is ₹3,360. Find the number of ₹20 notes in that box.

- (a) 25
- (b) 35
- (c) 45
- (d) 15

Ans.(b)

Q9. If Asif offers a 40 percent discount on the marked price, then he makes a loss of 16.66 percent. What is the percentage of impurities (of no cost) that has to be mixed to gain a 10 percent profit after the discount?

- (a) 27 percent
- (b) 24.24 percent
- (c) 32 percent
- (d) 43.25 percent

Ans.(b)

Q10. The average marks of Gopal in 12 papers is 83. If he got the same highest marks in two papers and the same lowest marks in three papers, excluding the highest and lowest marks, the average of the remaining papers is 89, and the difference between the highest and the lowest marks is 39. If the highest is 2 marks less and lowest is 6 marks more, then the average of 12 papers is

- (a) $84\frac{2}{3}$
- (b) $84\frac{1}{3}$
- (c) $84\frac{5}{6}$
- (d) $84\frac{1}{6}$

Ans.(d)

Q11. There are 80 students in a hostel. Due to new admissions, 30 new students join the mess, and the daily expense of the mess increases by ₹260, while the average expenditure per head diminishes by ₹10. What was the original daily expenditure (in ₹, rounded off to the nearest tens) of the mess?

- (a) 3,720
- (b) 3,630
- (c) 4,020
- (d) 4,220

Ans.(b)

Q12. A, B and C can do a piece of work in 18 days, 24 days and 36 days, respectively. On the first day A is assisted by B, and on the second day C assists A. This 2-day cycle is repeated starting with A and B, till the work gets completed. How long in days would it take to complete the work?

- (a) 12
- (b) 10
- (c) 11
- (d) 13

Ans.(c)

Q13. The price of 4 pens and 5 notebooks is ₹130. If the price of a pen increases by 25% and the price of a notebook decreases by 20%, then the price of 2 pens and 4 notebooks becomes ₹82. What is the original price of 1 pen and 2 notebooks?

- (a) ₹25
- (b) ₹30
- (c) ₹40
- (d) ₹20

Ans.(c)

Q14. If the 9-digit number $5947x19y2$ is divisible by 88, then what is the maximum possible value of $(x+y)$?

- (a) 15
- (b) 17
- (c) 21
- (d) 11

Ans.(a)

Q15. The median of 9, 11, 15, 17, x , 19, 21 is x , where x is an integer. Which of the following can be the value of x ?

- (a) 14
- (b) 18
- (c) 16
- (d) 13

Ans.(c)

Q16. The height of a conical toy is 12 cm and the radius of its base is 5 cm. Find the cost of painting of the toy from outside at the rate of Rs. 28 sq. cm and the painter does not paint the base of the toy. (Use $\pi = 22/7$)

- (a) Rs. 5750
- (b) Rs. 5730
- (c) Rs. 5740
- (d) Rs. 5720

Ans.(d)

Q17. Distance covered by a train in the first hour is 40 km, distance covered in the second hour is 43 km, distance covered in the third hour is 46 km and so on for 10 hours. What will be the total distance covered by the train in these 10 hours?

- (a) 458 km
- (b) 520 km
- (c) 535 km
- (d) 550 km

Ans.(c)

Q18. Abhishek rides a bicycle around a circular path of radius 100 m. The radius of the wheel of the bicycle is 150 cm. The bicycle comes to the starting point for the first time in 1 hour 40 minutes. What is the number of revolutions of the wheel in 45 minutes?

- (a) 30
- (b) 40
- (c) 45
- (d) 35

Ans.(a)

Q19. Rohan owns a field worth of Rs. 40000. He sells it to Kajal at a profit of 10 percent. After some time, Kajal sells it back to Rohan at 5 percent loss. What is the profit or loss percent of Rohan?

- (a) 5 percent loss
- (b) 5.5 percent loss
- (c) 5.5 percent profit
- (d) 5 percent profit

Ans.(c)

Q20. Area of a triangle with vertices at (2, 3), (-1, 0) and (2, -4) is:

- (a) $24/2$ sq units
- (b) $21/2$ sq units
- (c) 21 sq units
- (d) None of these

Ans.(b)

Q21. If 2 times a mother's present age is 27 years more than 9 times her daughter's present age, and 6 times the daughter's present age is 9 years less than the mother's present age, then what is the difference (in years) between the ages of the mother and the daughter?

- (a) 21
- (b) 29
- (c) 24
- (d) 23

Ans.(c)

Q22. A certain sum, when invested for 3 years at 10% per annum compound interest, compounded annually, amounts to Rs. 53,240. Find the sum invested (in Rs.).

- (a) Rs. 40,000
- (b) Rs. 41,000
- (c) Rs. 42,000
- (d) Rs. 43,000

Ans.(a)

Q23. Four varieties of wheat costing ₹30/kg, ₹45/kg, ₹60/kg and an unknown price are mixed in ratio 1:2:3:4. The mixture is sold at ₹46/kg with 15% profit. What is the cost of the fourth variety?

- (a) ₹50/kg
- (b) ₹25/kg
- (c) ₹60/kg
- (d) ₹65/kg

Ans.(b)

Q24. If $\operatorname{cosec}^2 \alpha = 9$, then find the value of $\cos^2 \alpha + \sec (90^\circ - \alpha)$ where $0^\circ < \alpha < 90^\circ$.

- (a) $9/8$
- (b) $17/8$
- (c) $35/9$
- (d) $21/8$

Ans.(c)

Q25. If p is the fourth proportion to 4, 9 and 8, and q is the third proportional of p and 30, then find the mean proportional between 32 and q.

- (a) 40
- (b) 35
- (c) 36
- (d) 42

Ans.(a)