Quant Mega Quiz for SSC CHSL

Q1. Two circles with centres A and B of radii 3 cm and 4 cm respectively intersect at two points C and D such that AC and BC are tangents to the two circles. Find the length of common chord CD.
(a) 4.4 cm
(b) 4.3 cm
(c) 4.5 cm
(d) 4.8 cm

Q2. (sec 20° + cot 70° + 1) (cosec 20° – tan 70° – 1) = ?
(a) –1
(b) 2
(c) 1
(d) –2

Q3. The value of the expression $x^4 – 17x^3 + 17x^2 – 17x + 17$ at x = 16 is:
(a) 0
(b) 1
(c) 33
(d) 15

Q4. There are two mixtures containing Gold, silver and platinum. First mixture contains 40% platinum and second mixture contains 26% silver. The percentage of gold in both mixtures are same. If 150 kg of first mixture is mixed with the 250 kg of second mixture then the percentage of Gold in resultant mixture is 30%. Find the quantity of platinum in the resultant mixture.
(a) 110 kg
(b) 170 kg
(c) 90 kg
(d) 85 kg

Q5. A and B can complete a task in 30 days when working together after A and B have been working together for 11 days, B is called away and A, all by himself completes the task in the next 28 days. Had A been working alone, the number of days taken by him to complete the task would have been:
(a) $33\frac{3}{19}$
(b) $19\frac{6}{25}$
(c) $44\frac{4}{19}$
(d) None of these

Q6. A and B enter into partnership. A supplies whole of the capital amounting to Rs. 45000 with the condition that the profits are to be equally divided and that B pays A interest on half of the capital at 10% per annum, but receives, Rs. 120 per month for carrying on the concern. When B's income in one-half of A's income their total yearly profit is:

(a) Rs. 9180

(b) Rs. 7050

(c) Rs. 3060

(d) Rs. 1440

Q7.

If $x + \frac{1}{x} = 1$

then $x^{52} + x^{46} + x^{32} + x^{26} + x^{21} + x^{15} + x^6 + x^3 + 4$ is equal to

(a) 0

(b) 3

(c) 4

(d) 2

Q8. A man rowed against a stream flowing 1½ km/hr to a certain point and then turned back, stopping 2 km, short of the place where he originally started. If the whole time occupied in rowing be 2 hr 10 min and his uniform speed in still water be 4½ km/hr. Find the distance the man went up the stream.

(a) 7 km

(b) 3.5 km

(c) 4 km

(d) 5 km

Q9. tan 40° + 2tan 10° = ?

(a) 0

(b) tan 50°

(c) 2tan 50°

(d) 1

Q10. Kavita, Babita and Samita started a work. 5 days later Samita left the work and Babita left the work after working 8 days. In how many more days Kavita would have completed the rest work if they take 20, 60 and 30 days individually to finish a work?

(a) 4

(b) 5

(c) 6

(d) 8

Q11. The price of tea increases by 32% and so a housewife's expenditure on tea increases by 10%. If she bought 12 kgs earlier, what is the quantity bought now?
(a) 10
(b) 8½
(c) 8
(d) 7.9

Q12. A person sells an article at a profit of 10%. If he had bought it at 10% less and sold it for Rs. 3 more, he would have gained 25%. Find the cost price.
(a) Rs. 120
(b) Rs. 150
(c) Rs. 175
(d) Rs. 225

Q13. A shopkeeper sells a TV set on discount of 8% of printed price and gains 25%. If marked price was Rs. 12500 then, what was the cost price?
(a) Rs. 13800
(b) Rs. 9200
(c) Rs. 14800
(d) Rs. 13720

Q14. Two trains start from stations A and B and travel towards each other at speed of 50 km/hr and 60 km/hr respectively. At the time of their meeting, the second train has travelled 120 km more than the first. The distance between A and B is:
(a) 990 km
(b) 1200 km
(c) 1320 km
(d) 1440 km

Q15. Rs. 76 is divided among A, B and C such that A gets Rs. 7 more than B and B get Rs. 6 more than C. Find the ratio of their share?
(a) 19 : 24 : 33
(b) 32 : 25 : 19
(c) 32 : 24 : 20
(d) 19 : 25 : 33

Q16. The sum of internal angle if a regular polygon is 1440°. What is the number of its sides?
(a) 8
(b) 12
(c) 10
(d) 6

Q17. A shopkeeper purchased 510 eggs at the rate of Rs. 20 per dozen. 30 eggs were broken on the way. In order to make a gain of 20%, he must sell the remaining eggs at the rate of
(a) Rs. 22.50 per dozen
(b) Rs. 25.50 per dozen
(c) Rs. 26 per dozen
(d) Rs. 26.50 per dozen

Q18. A sells a watch to B and makes a loss of 12%. B makes a profit of 12½% by selling the watch to C. If A sells the watch to B at the cost of which C purchased it, then the percentage of loss or profit of A will be.
(a) 1% loss
(b) 1% Profit
(c) 2% loss
(d) 2% Profit

Q19. A man buys 3 type-I cakes and 6 types-II cakes for Rs. 900. He sells type-I cakes at a profit of 15% and type-II cakes at a loss of 10%. If his overall profits is Rs. 30, the cost price (in Rs.) of a type-I and of a type-II cakes is
(a) 100, 100
(b) 160, 70
(c) 180, 60
(d) 120, 90

Q20. A car moving in the morning fog passes a man walking at 4 km/h in the same direction. The man can see the car for 3 minutes and visibility is upto a distance of 130 m. The speed of the car is:
(a) 10 km/hr
(b) 6.6 km/hr
(c) 7 km/hr
(d) 5 km/hr

Q21. Krishna has some hens and some goats. If the total number of animal heads are 81 and total number of animal legs are 234, how many goats does Krishna has?
(a) 45
(b) 24
(c) 36
(d) None of these

Q22. When two numbers are separately divided by 33, the remainders are 21 and 28 respectively. If the sum of the two numbers is divided by 33, the remainder will be
(a) 10
(b) 12
(c) 14
(d) 16

Q23. When 'n' is divisible by 5 the remainder is 2. What is the remainder when n^2 is divided by 5?
(a) 2
(b) 3
(c) 1
(d) 4

Q24. A student was asked to divide a number by 6 and add 12 to the quotient. He, however, first added 12 to the number and then divided it by 6, getting 112 as the answer. The correct answer should have been
(a) 124
(b) 122
(c) 118
(d) 114

Q25. The numerator of a fraction is 4 less than its denominator. If the numerator is decreased by 2 and the denominator is increased by 1, then the denominator becomes eight times the numerator. Find the fraction
(a) 3/8
(b) 3/7
(c) 4/8
(d) 2/7

Q26. A number consist of two digits such that the digit in the ten's place is less by 2 than the digit in the units' place. Three times the number added to 6/7 times the number obtained by reversing the digits equals 108. The sum of digits in the number is:
(a) 8
(b) 9
(c) 6
(d) 7

Q27. Of the three numbers, the second is twice the first and it is also thrice the third. If the average of three numbers is 44, the difference of the first number and the third number is:
(a) 24
(b) 18
(c) 12
(d) 6

Q28. A and B have together three times what B and C have, while A, B, C together have thirty rupees more than that of A. If B has 5 times that of C, then A has
(a) Rs. 60
(b) Rs. 65
(c) Rs. 75
(d) Rs. 45

Q29. In a class 3/5 of the students are girls and rest are boys. If 2/9 of the girls and 1/4 of the boys are absent. What part of the total number of students are present?
(a) 23/30
(b) 23/36
(c) 18/49
(d) 17/25

Q30. A, B, C and D purchase a gift worth Rs. 60. A pays 1/2 of what others are paying, B pays $1/3^{rd}$ of what others are paying and C pays $1/4^{th}$ of what others are paying. What is the amount paid by D?
(a) 16
(b) 13
(c) 14
(d) 15