Quant Mega Quiz for SSC

Q1. Which number is 40% less than 90% of 100?
(a) 36
(b) 54
(c) 50
(d) 60

Q2. The difference of two numbers is 15% of their sum. the ratio of the larger number to the smaller number is:
(a) 23 : 17
(b) 11 : 9
(c) 17 : 11
(d) 23 : 11

Q3. The income of C is 20% more than B's and the income of B is 25% more than A's. Find by how much percent is C's income more than A's ?
(a) 150%
(b) 50%
(c) 25%
(d) 35%

Q4. Two numbers are in the ratio 2 : 3. If 20% of the smaller number added to 20, is equal to the sum of 10% of the larger number and 25, then the smaller number is:
(a) 100
(b) 160
(c) 180
(d) 200

Q5. A number if reduced by 25% becomes 225. By what percent should it be increased so that it becomes 375?
(a) 25%
(b) 30%
(c) 35%
(d) 75%

Q6. The price of petrol is increased by 25%. By how much percent a car owner should reduce his consumption of petrol so that the expenditure on petrol would not be increased?
(a) 25%
(b) 30%
(c) 50%
(d) 20%

Q7. The Government reduced the price of sugar by 10 percent. By this a consumer can buy 6.2 kg more sugar for Rs. 837. The reduced price per kg of sugar is:
(a) Rs. 12.50
(b) Rs. 13.00
(c) Rs. 13.50
(d) Rs. 14.00

Q8. The price of sugar is increased by 20%. If the expenditure on sugar has to be kept the same as earlier, the ratio between the reduction in consumption and the original consumption is:
(a) 1 : 3
(b) 1 : 4
(c) 1 : 6
(d) 1 : 5

Q9. The price of an article was first increased by 10% and then again by 20%. If the last increased price was Rs. 33, then original price was:
(a) Rs. 30
(b) Rs. 27.50
(c) Rs. 26.50
(d) Rs. 25

Q10. Two mobile phones are sold at Rs. 6000 each. The first mobile is sold at 20% profit and the other one at 25% loss. What is the percentage of loss or profit incurred during the deal?
(a) 7.7% loss
(b) 8.3 loss
(c) 9% loss
(d) 2% profit

Q11. If $\frac{\cos\alpha}{\sin\beta} = n$ and $\frac{\cos\alpha}{\cos\beta} = m$, then the value of $\cos^2\beta$ is?
(a) $\frac{m^2}{m^2+n^2}$
(b) $\frac{n^2}{m^2+n^2}$
(c) $\frac{1}{m^2+n^2}$
(d) 0

Q12. What is the simplified value of $(2 + 1)(2^2 + 1)(2^4 + 1)(2^8 + 1)$?
(a) $2^8 - 1$
(b) $2^{16} - 1$
(c) $2^{32} - 1$
(d) $2^{64} - 1$

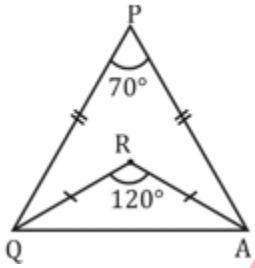
Q13. At Dehradun Public School $\frac{1}{9}$ students were absent in an exam and only $\frac{19}{24}$ of those who appeared for the exam passed it. Now we know that 500 students failed in the exam. Total number of students registered for the exam:

(a) 2000
(b) 2400
(c) 2700
(d) 3000

Q14. PQR is a right angled triangle in which PQ = QR. If the hypotenuse of the triangle is 20 cm, then what is the area (in cm^2) of the triangle PQR?

(a) $100\sqrt{2}$
(b) 100
(c) $50\sqrt{2}$
(d) 50

Q15. Find PQR of the given isosceles ΔAPQ, when PQ = PA & QR = RA?



(a) 35°
(b) 25°
(c) 40°
(d) 34°

Q16. If $a = -5, b = -7, c = 10$, then the value of $\frac{a^3 + b^3 + c^3 - 3abc}{(ab + bc + ca - a^2 - b^2 - c^2)}$

(a) –1
(b) 2
(c) 18
(d) 21

Q17. When A alone does a piece of work, he takes 25 days more than the time taken by (A + B) to complete that particular work, while B alone takes 49 days more than the time taken by (A + B) to finish the same work. A and B together will take what time to finish this work?

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

Q18. X can do a work in 16 days. In how many days will the work be completed by Y, if the efficiency of Y is 60% more than that of X?
(a) 10 days
(b) 12 days
(c) 25 days
(d) 30 days

Q19. If A, B, C are the angle of a triangle, then cot A. cot B + cot B cot C + cot C. cot A will be equal to
(a) tan 0°
(b) tan 45°
(c) tan 30°
(d) tan 60°

Q20. The difference of compound interest and simple interest for 3 years and for 2 years are in ratio 23 : 7. What is rate of interest per annum (in %)?
(a) 200/7%
(b) 100/7%
(c) 300/7%
(d) 400/7%

Q21. If three numbers are in the ratio of 1:3:5 and their sum is 10,800. Find the largest of the three numbers.
(a) 1200
(b) 3600
(c) 6000
(d) 5400

Q22. A positive number exceed its positive square root by 30. Find the number.
(a) 16
(b) 36
(c) 25
(d) 49

Q23. A car travels at the speed of 50 km/hr for the first half of the journey and at the speed of 60 km/hr for the second half of the journey. What is the average speed of the car for the entire journey?
(a) 54.54 km/hr
(b) 36.36 km/hr
(c) 50.5 km/hr
(d) 45.45 km/hr

Q24. The dimensions of a luggage box are 80 cm, 60 cm and 40 cm. How many sq. cm of cloth is required to cover the box?
(a) 10400 sq. cm
(b) 20800 sq. cm
(c) 20400 sq. cm
(d) 10200 sq. cm

Q25. The sum of digits of a two-digit number is 10. When the digits are reversed, the number decreases by 54. Find the changed number.
(a) 73
(b) 28
(c) 82
(d) 37

Q26. Th incomes of A and B are in the ratio of 3:2 and their expenditures are Rs. 14,000 and Rs. 10,000 respectively. If A saves Rs. 4000, then B's savings will be:
(a) Rs. 4000
(b) Rs. 2000
(c) Rs. 3000
(d) Rs. 5000

Q27. Simplify: (2/9 + 3/5)÷ (2/9 + 2/5)
(a) 37/28
(b) 47/43
(c) 43/47
(d) 41/47

Q28. P is twice as efficient as Q. Q takes 12 days to complete a job. If both of them work together, how much time will they take to complete the job?
(a) 6 days
(b) 5 days
(c) 4 days
(d) 3 days

Q29. What is the median of the following list of numbers: 5, 3, 6, 9, 11, 19, and 1 ?
(a) 5
(b) 6
(c) 9
(d) 11

Q30. A sold a toy to B at a profit of 15%. Later on, B sold it back to A at a profit of 20%, thereby gaining Rs. 552. How much did A pay for the toy originally?
(a) Rs. 2400
(b) Rs. 2560
(c) Rs. 2760
(d) Rs. 2800