Quant Mega Quiz for SSC CHSL

Q1. Pipe A and B can fill a tank in 12 hrs and 36 hrs respectively whereas pipe C can empty the fill tank in 72 hrs all three pipes are opened together, but pipe A is closed after 6 hours. After how many hours, the remaining part of the tank will be filled?

(a) 28
(b) 30
(c) 26
(d) 22

Q2. A shopkeeper sold two articles for Rs. 6979 each. on one he gained 11% and on the other he lost 11%. What is the overall percentage gain or loss?

(a) 1.25% gain
(b) 1.21% gain
(c) 1.21% loss
(d) 1.25% loss

Q3. The value of $\frac{\sin^2 45 + \cos^2 30 - \sec 35 \sin 55^\circ}{\tan^2 30 + \tan^2 60}$

(a) 1/8
(b) $\sqrt{3}/2$
(c) 2/9
(d) 0

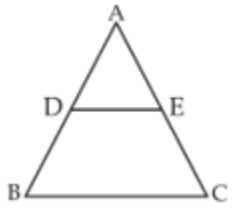
Q4. PA and PB are two tangents from a point P outside the circle with centre O. if A and B are points on the circle such that ∠APB = 135°, then ∠OAB is equal to –

(a) 72.5°
(b) 81.5°
(c) 67.5°
(d) 90°

Q5. Two pipe A and B can fill a tank in 16 hours and 20 hours. Respectively. If they are opened alternatively for 1 hour each, starting with pipe B first, in how many hours will the empty tank be filled?

(a) $15\frac{1}{3}$ hours
(b) $16\frac{2}{3}$ hours
(c) $17\frac{4}{5}$ hours
(d) $19\frac{6}{7}$ hours

Q6. Analyze the figure shown below in which DE || BC and the other dimensions are as follows: AD=3 cm, BD=4 cm, AE=4.4 cm and DE=6 cm. Calculate the length (in cm) of BC.



(a) 6
(b) 8
(c) 12
(d) 14

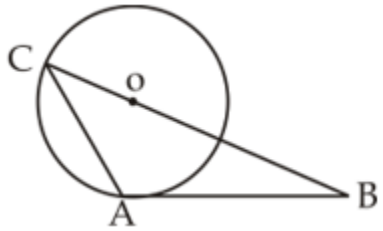
Q7. Two numbers are more than the third number by 21.25% and 36% respectively. First number is what percentage of the second number?
(a) 84.68
(b) 89.15
(c) 85.65
(d)61.25

Q8. If a : b = b : c, then what is the value of $a^4 : v^4$?
(a) a^2 :cb
(b) $a^2 : c^2$
(c) a^2 b : c^3
(d) a : c

Q9. R and S started a business by investing Rs 153000 and Rs 195000 respectively for the same period of time. If R's share in the profit earned by them is Rs17000, then what is the total profit (in Rs) earned by both of them together?
(a) 36586.54
(b) 46156.54
(c) 38666.67
(d) 39665.36

Q10. The average of 17 numbers is 69. If four numbers 68, 57, 71 and 85 are removed then what will be the average of remaining numbers?
(a) 68.615
(b) 69.5
(c) 72.5
(d) 68.375

Q11. In the given figure, triangle ABC is drawn such that AB is tangent to a circle at A whose radius is 15 cm and BC passes through centre 'O' of the circle. Point C lies on the circle. If BC = 54 cm and AB = 36 cm, then what is the area (in cm^2) of triangle ABC?



(a) 407.5 cm^2
(b) 373.85 cm^2
(c) 557.5 cm^2
(d) 657.5 cm^2

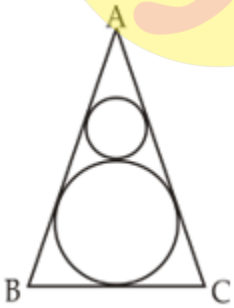
Q12. What is the simplified value of $\left[\frac{2}{(\cot A - \tan A)}\right]$?

(a) sinA.cosA
(b) tan2A
(c) $\tan^2 A$
(d) $\sin^2 A.\cos^2 A$

Q13. PQRS is a square, M is the midpoint of PQ and N is a point on QR such that NR is two third of QR. If the area of ΔMQN is 27 cm^2, then what is the length (in cm) of PR?

(a) $16\sqrt{2}$
(b) 16
(c) $18\sqrt{2}$
(d) 18

Q14. In the given figure, ABC is an equilateral triangle. If the area of bigger circle is 5544 cm^2, then what is the area (in cm^2) of smaller circle?



(a) 154
(b) 616
(c) 308
(d) 770

Q15. Two chords of length 20 cm and 24 cm are drawn perpendicular to each other in a circle of radius 15 cm. What is the distance between the points of intersection of these chords (in cm) from the center of the circle?

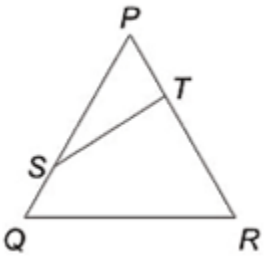
(a) $\sqrt{114}$

(b) $\sqrt{182}$

(c) $\sqrt{206}$

(d) $\sqrt{218}$

Q16. In the given figure, QRTS forms a cyclic quadrilateral. If PT = 5 cm, SQ = 4 cm, PS = 6 cm and ∠PQR= 63°, then what is the square value (in cm) of TR?



(a) 64

(b) 49

(c) 9

(d) 25

Q17. What is the simplified value of [cos θ +sin² (90 – θ) – [{sin(90 – θ)sin θ}/tan θ]]?

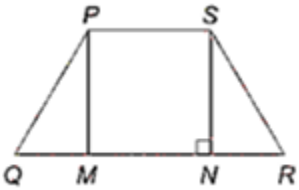
(a) 1

(b) cosec θ

(c) 0

(d) cos θ

Q18. In the given figure, PQRS is a trapezium in which PM || SN, NR = 9 cm, PS = 12 cm, QM = NR and NR= SN. What is 2/3th of the area (in cm^2) of trapezium?



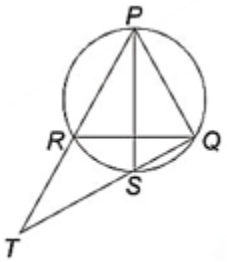
(a) 178

(b) 189

(c) 126

(d) 180

Q19. In the given figure, PQR is an equilateral triangle and PS is the angle bisector of ∠P. What is the ratio between RT and RQ?



(a) 1 : 2
(b) 1 : 1
(c) 2 : 1
(d) 1 : 3

Q20. The radii of two cylinders are in the ratio 3 : 2 and their curved surface areas are in the ratio 3 : 5. What is the ratio of their volumes?
(a) 8 : 11
(b) 5 : 9
(c) 7 : 4
(d) 9:10

Q21. In a ΔABC, a circle is inscribed. It touches the sides AB, BC, and AC at the points P, Q and R respectively. If AP = 2cm, BQ = 5cm and CR = 7cm. Find the area of triangle
(a) $12\sqrt{3}cm^2$
(b) $14\sqrt{5}\ cm^2$
(c) $13\ cm^2$
(d) $16\sqrt{7}\ cm^2$

Q22. A train covers a distance of 576 km at a certain speed. If the speed is decreased by 24 km/hr, it wil take 2 hours more to cover the same distance. Find $33\frac{1}{3}$% of original speed.
(a) 32 km/hr
(b) 24 km/hr
(c) 38 km/hr
(d) 28 km/hr

Q23. Four years ago, the ratio of ages of A and B was 3 : 5. Ten years from now, the ratio of the ages of A and B will be 5 : 6. Find the sum of present ages?
(a) 32 years
(b) 24 years
(c) 26 years
(d) 22 years

Q24. For an article, the profit is 220% of the cost price. If the cost price increases by 25% but selling price remains same. Then original profit percentage (approx.)?

(a) 22%
(b) 26%
(c) 29%
(d) 31%

Q25. If a nine digit number 985x3678y is divisible by 72, find the value of x + y

(a) 4
(b) 8
(c) –2
(d) 6