Quant Mega Quiz for SSC CHSL

Q1. A T.V was sold at a profit of 5%. If it had been sold at a profit of 10% the profit would have been Rs. 1000 more. What is its cost price?

(a) Rs. 20000
(b) Rs. 5000
(c) Rs. 10000
(d) Rs. 15000

Q2. A man sells two chairs at Rs. 120 each and by doing so he gains 25% on one chair and loses 25% on the other. His loss on the whole in Rs. Is

(a) 20
(b) 16
(c) 25
(d) 30

Q3. A man sold two articles at Rs. 375 each. On one, he gains 25% and on the other, he loses 25%. The gain or loss% on the whole transaction is

(a) 6 % Loss
(b) 4(1/6)% profit
(c) Rs 50 Profit
(d) 6(1/4)% Loss

Q4. A man wanted to sell an article with 20% profit: but he acutually sold at 20% loss for Rs. 480, At what price he wanted to sell it to earn the profit?

(a) Rs. 720
(b) Rs. 840
(c) Rs. 600
(d) Rs. 750

Q5. If an article is sold at 5% gain instead of 5% loss, the man gains Rs. 5 more. Find the cost price of that article

(a) Rs. 100
(b) Rs. 105
(c) Rs. 50
(d) Rs. 110

Q6. On selling an article for Rs. 105 a trader loses 9%. To gain 30% he should sell the article at

(a) Rs. 126

(b) Rs. 144

(c) Rs. 150

(d) Rs. 139

Q7. An article is sold at a loss of 10%. Had it been sold for Rs. 9 more there would have been a gain of 12½% on it. The cost price of the article is:

(a) Rs. 40

(b) Rs. 45

(c) Rs. 50

(d) Rs. 35

Q8. By selling a table for Rs. 350 instead of Rs. 400, loss percent increases by 5%. The cost price of table is:

(a) Rs. 1,050

(b) Rs. 417.50

(c) Rs. 435

(d) Rs. 1,000

Q9. The marked price of an article is Rs. 500. It is sold at successive discounts of 20% and 10%. The selling price of the article (Rs.) is:

(a) Rs. 350

(b) Rs. 375

(c) Rs. 360

(d) Rs. 400

Q10. The marked price of an article is 10% higher than the cost price. A discount of 10% is given on the marked price. In this kind of sale, the seller bears

(a) No Profit No Loss

(b) 5% Loss

(c) 1% Profit

(d) 1% Loss

Q11. A pole is broken by the storm of wind and its top struck the ground at an angle of 45° and at a distance of 25 m from the foot of the pole. The height of the pole before it was broken was ?

(a) $25\sqrt{2}$ m

(b) $25(1+\sqrt{2})$ m

(c) $20\sqrt{3}$ m

(d) $\frac{25\sqrt{3}}{3}$ m

Q12. A boy standing in the middle of a field, observes a flying bird in the north at an angle of elevation of 60° and after two minutes, he observes the same bird in the south at an angle of elevation of 45°. If the bird flies all along in a straight line at a height of $40\sqrt{3}$ m, then its speed in km/hr is ?
(a) 3.276
(b) 3
(c)2.985
(d)3.50

Q13. The angles of elevation of the top of a tower standing on a horizontal plane from two points on a line passing through the foot of the tower at a distance 12 ft & 27ft respectively are complimentary angles. Then the height of the tower is
(a) 16 ft
(b) 12 ft
(c) 18 ft
(d) 14.4 ft

Q14. A ladder is lying/resting on a 10 m high wall. If it makes an angle of 60° with horizontal then the distance between foot of ladder & wall is –
(a) $\frac{10}{\sqrt{3}}$m
(b) $\frac{20\sqrt{3}}{3}$ m
(c) $10\sqrt{3}$ m
(d) $20\sqrt{3}$ m

Q15. A man standing at the top of tower of height 200 m observes a car at an angle of depression of 60°. After a while the angle of depression becomes 30°. The distance travelled by the car during this period is –
(a) $200\sqrt{3}$ m
(b) $\frac{400\sqrt{3}}{3}$ m
(c) $\frac{100\sqrt{3}}{3}$ m
(d) $200\sqrt{3}$ m

Q16. A fountain is 100 meter from the base of a pole. Angle of depression of the fountain from 2/3 rd of the pole's height is 30°. What is the height of the pole ?
(a) 150 m
(b) $\frac{150}{\sqrt{3}}$ m
(c) $\frac{50}{\sqrt{3}}$ m
(d) $50\sqrt{3}$ m

Q17. Walking towards the foot of a tower, at a certain distance Rana observes that the angle of elevation of the cliff of tower changes from 30° to 45° in 10 minutes. How much time will Rana take to reach the tower from the point where the angle of elevation is 45° ?

(a) $4(\sqrt{3}-1)$ m

(b) $5(\sqrt{3}+1)$ m

(c) $10(\sqrt{3}+1)$ m

(d) $10(\sqrt{3}-1)$ m

Q18. At the foot of mountain the elevation of its summit is 45°; after ascending 1 km towards the mountain up a slope of 30° inclination, the elevation is found to be 60°. Find the height of the mountain.

(a) $\frac{(\sqrt{3}-2)}{2}$ km

(b) $\frac{(\sqrt{3}+2)}{2}$ km

(c) $\frac{(\sqrt{3}-1)}{2}$km

(d) $\frac{\sqrt{3}+1}{2}$ km

Q19. An aeroplane when flying at a height of 3000 m from the ground passes vertically below the another plane at an instant when the angles of elevation of two planes from the same point are 60° & 45° respectively. The vertical distance between the two planes at that instant is ?

(a) $3000\left(1-\frac{1}{\sqrt{3}}\right)$ m

(b) 4500 m

(c) $3000(\sqrt{3}-1)$ m

(d) $3000(3-\sqrt{3})$ m

Q20. A minar is 800 m high from sea's surface. A guard sees a yacht of enemy from minar, which makes an angle of depression 60°. Find the distance between yacht and foot of the minar ?

(a) 600 m

(b) $180\sqrt{3}$ m

(c) $\frac{800}{\sqrt{3}}$ m

(d) $160\sqrt{3}$ m

Q21. A right circular cone is exactly fitted inside a cube in such a way that the edges of the base of the cone are touching the edges of one of the faces of the cube and the vertex touches the opposite face of the cube. If the volume of the cube is 343 cc. What approx. is the volume of the cone?

(a) 125 cm^3

(b) 81 cm^3

(c) 90 cm^3

(d) 112.5 cm^3

Q22. A conical cavity is drilled in a circular cylinder of 15 m height and 16 cm base diameter. The height and the base diameter of the cone are same as those of the cylinder. Determine the total surface area of the remaining solid.

(a) 440 π cm^2

(b) 215 π cm^2

(c) 542 π cm^2

(d) 376 π cm^2

Q23. If the area of the circular shell having inner and outer radii of 8 cm and 12 cm respectively is equal to the total surface area of cylinder of radius R_1 and height h, then h, in terms of R_1 will be

(a) $\frac{3R_1^2 - 30}{7R_1}$

(b) $\frac{R_1^2 - 40}{R_1^2}$

(c) $\frac{30 - R_1}{R_1^2}$

(d) $\frac{40 - R_1^2}{R_1}$

Q24. A solid cylinder and a solid cone have equal base and equal height. If the radius and the height be in the ratio of 4 : 3, the ratio of the total surface area of the cylinder to that of the cone is in the ratio of

(a) 10 : 9

(b) 11 : 9

(c) 12 : 9

(d) 14 : 9

Q25. A cylindrical tub of radius 12 cm contains water up to a depth of 20 cm. A spherical iron ball is dropped into the tub and thus the level of water is raised by 6.75 cm. The radius of the ball is

(a) 7.25 cm

(b) 6 cm

(c) 4.5 cm

(d) 9 cm

Q26. The area of a rectangular football field is 24200 sq. m. It is half as broad as it is long. What is the approx. minimum distance a man will cover if he wishes to go from one corner to the opposite one?

(a) 283 m

(b) 246 m

(c) 576 m

(d) 289 m

Q27. A ladder is resting with one end in contact with the top of a wall of height 60 m and the other end on the ground is at a distance of 11 m from the wall. The length of the ladder is :
(a) 61 m
(b) 71 m
(c) 87 m
(d) None of these

Q28. The area of a minor sector subtending the central angle at the center 40° is 8.25 cm^2. What is the area of the remaining part (i.e., major sector) of the circle?
(a) 82.5 cm^2
(b) 74.25 cm^2
(c) 66 cm^2
(d) None of these

Q29. If a piece of wire 25 cm long is bent into an arc of a circle subtending an angle of 75° at the center, then the radius of the circle (in cm) is:
(a) $\frac{\pi}{120}$
(b) $\frac{60}{\pi}$
(c) $60\,\pi$
(d) None of these

Q30.If the circumference of a circle is 4.4 m, then the area of the circle (in m^2) is :
(a) 49/π
(b) 49π
(c) 4.9π
(d) None of these