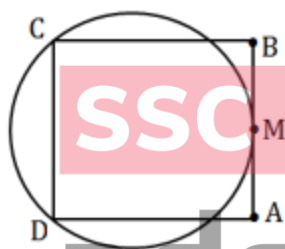


Quantitative Aptitude Mega Quiz for RRB

Q1. In a triangle with integer side lengths, one side is three times as long as a second side, and the length of the third side is 15. What is the greatest possible perimeter of the triangle?

- (a) 43
- (b) 44
- (c) 45
- (d) 46

Q2. The square ABCD has side length 50 units. The point M is the mid-point of side AB and the circle passes through C, D and M. Find the radius of the circle (in the same unit).



- (a) $10\sqrt{2}$
- (b) 31.25
- (c) $20\sqrt{2}$
- (d) 62.5

Q3. What its area of triangle having the sides 4, 6 and 12 units.

- (a) 14.28
- (b) 12.6
- (c) 16.3
- (d) Not possible

Q4. A ladder of length 65 m is resting against a wall. If it slips 8 m down the wall, then its bottom will move away from the wall by x m. If it was initially 25 m away from it, what is the value is x?

- (a) 60 m
- (b) 39 m
- (c) 14 m
- (d) 52 m


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GROUP D

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Q5. A rectangular room measures $7 \text{ m} \times 7 \text{ m} \times 8 \text{ m}$. What is the maximum length of bamboo it can accommodate?

- (a) 18 m
- (b) $9\sqrt{2}$ m
- (c) $12\sqrt{2}$ m
- (d) $7\sqrt{3}$ m

Q6. If the circumference and the area of a circle are numerically equal, then what is the numerical value of the diameter?

- (a) 1
- (b) 2
- (c) 4
- (d) π

Q7. A is the area of a square inscribed in a circle of radius 'r' and B is the area of a hexagon inscribed in the same circle. Find the value of B/A.

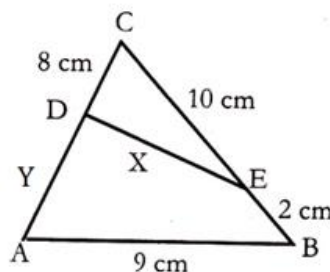
- (a) $2\sqrt{3}$
- (b) $\frac{3\sqrt{3}}{4}$
- (c) $\frac{2\sqrt{3}}{4}$
- (d) $2/1$

Q8. In a right angled $\triangle ABC$ (right angled at C), the perpendicular drawn from C on the hypotenuse meets the hypotenuse at D and the bisector of $\angle C$ meets the hypotenuse at E. If $\frac{1(AE)}{1(EB)} = \frac{3}{2}$ and $1(DB) = 4 \text{ cm}$, what is the length of CD?

- (a) $\sqrt{8}$ cm
- (b) $\sqrt{6}$ cm
- (c) 3.7 cm
- (d) 6 cm

Q9. Consider the figure given below:

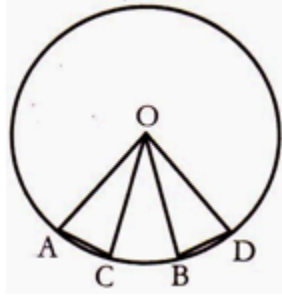
$\angle A = \angle CED$, $CD = 8 \text{ cm}$, $CE = 10 \text{ cm}$, $BE = 2 \text{ cm}$, $AB = 9$, $AD = y$ and $DE = x$. The value of $x + y$ is



- (a) 9 cm
- (b) 13 cm
- (c) 15 cm
- (d) 10 cm

Q10. Consider the diagram given below:

Chord AC = Chord BD, $\angle AOB = 40^\circ$, $\angle BOC = 15^\circ$, what is the value of $\angle AOD$?



- (a) 25°
- (b) 45°
- (c) 60°
- (d) 65°

Q11. A man purchased 7 bags of rice at the rate of Rs. 800 each, 8 bags of rice at Rs. 1000 each and 5 bags of rice at the rate of Rs. 1200 each. What is the average cost of one bag of rice?

- (a) Rs. 1000
- (b) Rs. 980
- (c) Rs. 1120
- (d) Rs. 1050

Q12. A train runs from Howrah to Bandel at an average speed 20 km/hr and returns at an average speed of 30 km/hr. The average speed (in km/hr) of the train in the whole journey is

- (a) 20
- (b) 22.5
- (c) 24
- (d) 25

Q13. Salim has to sell vegetables worth Rs. 5750 for Rs. 4500 due to heavy rain full. What is the loss percentage that he has incurred?

- (a) 21.74%
- (b) 23.4%
- (c) 20%
- (d) 23.45%

Q14. If selling price of an article is $1\frac{1}{3}$ of its cost price, find gain %.

- (a) 25%
- (b) $33\frac{1}{3}\%$
- (c) 1.33%
- (d) $66\frac{2}{3}\%$

Q15. A class has two sections, which contain 20 and 30 students. The pass percentage of these sections are 80% and 60% respectively. The pass percentage of whole class is

- (a) 60
- (b) 68
- (c) 70
- (d) 78

Q16. A truck travels 90 km/hr for the first 1 hours. After that it travels 70 km/hr. Find the time taken by the truck to travel 310 kilometres.

- (a) 2.5 hrs
- (b) 3 hrs
- (c) 3.5 hrs
- (d) 4 hrs

Q17. The amount Rs. 2100 became Rs. 2352 in 2 years all simple interest. If the interest rate is decreased by 1%, what is the new interest?

- (a) Rs. 210
- (b) Rs. 220
- (c) Rs. 242
- (d) Rs. 252

Q18. A number is first decreased by 20%. The decreased number is then increased by 20%. The resulting number is less than the original number by 20. Then the original number is

- (a) 200
- (b) 400
- (c) 500
- (d) 600

Q19. If $a + b = 12$, $ab = 22$, then $(a^2 + b^2)$ is equal to

- (a) 188
- (b) 144
- (c) 34
- (d) 100

Q20. How many men need to be employed to complete a job in 5 days, if 15 men can complete $\frac{1}{3}$ of the job in 7 days?

- (a) 20
- (b) 21
- (c) 45
- (d) 63



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Q21. In a $\triangle ABC$, $\angle A + \angle B = 75^\circ$ and $\angle B + \angle C = 140^\circ$, then $\angle B$ is

- (a) 40°
- (b) 35°
- (c) 50°
- (d) 45°

Q22. $\triangle ABC$ is similar to $\triangle DEF$, area of $\triangle ABC$ is 9 sq.cm. and area of $\triangle DEF$ is 16 sq.cm. and $BC = 2.1$ cm. Then the length of EF will be

- (a) 5.6 cm
- (b) 2.8 cm
- (c) 3.7 cm
- (d) 1.4 cm

Q23. A chord of a circle is equal to its radius. The angle subtended by this chord at a point on the circumference is

- (a) 80°
- (b) 90°
- (c) 60°
- (d) 30°

Q24. Let two chords AB and AC of the larger circle touch the smaller circle having the same centre at X and Y . Then $XY = ?$

- (a) BC
- (b) $\frac{1}{2} BC$
- (c) $\frac{1}{3} BC$
- (d) $\frac{1}{4} BC$

Q25. Let G be the centroid of the equilateral triangle ABC of perimeter 24 cm. Then the length of AG is

- (a) $2\sqrt{3}$ cm
- (b) $3\sqrt{3}$ cm
- (c) $8/\sqrt{3}$ cm
- (d) $4\sqrt{3}$ cm

Q26. A and B are the centres of two circles with radii 11 cm and 6 cm respectively. A common tangent touches these circles at O & D respectively. If $AB = 13$ cm, then the length of OD is

- (a) 13 cm
- (b) 17 cm
- (c) 8.5 cm
- (d) 12 cm

Q27. ABC is an isosceles triangle inscribed in a circle. If $AB = AC = 12\sqrt{5}$ and $BC = 24$ cm then radius of circle is

- (a) 10 cm
- (b) 15 cm
- (c) 12 cm
- (d) 14 cm

Q28. ABC is an isosceles triangle where $AB = AC$ which is circumscribed about a circle. If P is the point where the circle touches the side BC, then which of the following is true?

- (a) $BP = PC$
- (b) $BP > PC$
- (c) $BP < PC$
- (d) $BP = \frac{1}{2} PC$

Q29. If D and E are the midpoints of AB and AC respectively of $\triangle ABC$, then the ratio of the areas of $\triangle ADE$ and BCED is?

- (a) 1 : 2
- (b) 2 : 3
- (c) 1 : 4
- (d) 1 : 3



Q30. O is the circumcenter of the isosceles $\triangle ABC$. Given that $AB = AC = 17$ cm and $BC = 6$ cm, the radius of the circle is

- (a) 8.12 cm
- (b) 8.06 cm
- (c) 8.36 cm
- (d) 8.6 cm

