

- Q1. A shopkeeper mark up his articles by 40%, he gives 20% discount but he cheats by using 20% less weight he also gives 2 articles free by selling every 12 articles find the overall profit or loss percent.
- (a) 10%
(b) 20%
(c) 15%
(d) 40%
- Q2. A person cover 300 km. If he travels 60 km by train and remaining by bus, it takes 4 hr. But when he covers 100 km by train and remaining part by bus then it will take 20 min more. Find the speed of the train.
- (a) 140 km/hr
(b) 120 km/hr
(c) 150 km/hr
(d) 130 km/hr
- Q3. A boat takes 40% more time in moving a certain distance upstream than downstream. Then the speed of current is what percent less than the speed of boat in still water.
- (a) $78\frac{1}{3}\%$
(b) $66\frac{1}{3}\%$
(c) $56\frac{1}{3}\%$
(d) $83\frac{1}{3}\%$
- Q4. A & B both start a business but after working 9 months. A left, at the end of the year B will get Rs. 120 more profit than A, if the total profit was Rs. 1800. Find the investment of B if A invest Rs. 500 more than B.
- (a) 3000 ₹
(b) 2000 ₹
(c) 1500 ₹
(d) 3500 ₹
- Q5. If $x = 19$, find $x^6 - 20x^5 + 20x^4 - 20x^3 + 20x^2 - 20x + 20$
- (a) 1
(b) 2
(c) 5
(d) 4
- Q6. Two trains are running 40 km/hr and 20 km/hr respectively in the same direction, the faster train completely passes a man sitting in the slower train in 5 seconds. Find the length of the faster train.

- (a) $27\frac{7}{9}$
- (b) $20\frac{7}{9}$
- (c) $22\frac{7}{9}$
- (d) $25\frac{7}{9}$

Q7. What will be the sum to n terms of the series $8 + 88 + 888 + 8888.....$

- (a) $\frac{8(10^n - 9n)}{81}$
- (b) $\frac{8(10^{n+1} - 10 - 9n)}{81}$
- (c) $8(10^{n-1} - 10)$
- (d) $8(10^{n+1} - 10)$

Q8. Due to 37.5% reduction in the price of sugar, a person can buy 1.5 kg more sugar by spending Rs. 80. Find the reduced rate of sugar.

- (a) Rs. 20/kg
- (b) Rs. 22/kg
- (c) Rs. 28/kg
- (d) Rs. 25/kg

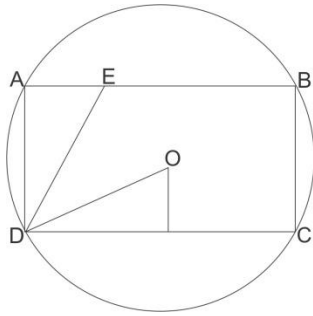
Q9. Two sides of a plot measure 32 metre and 24 metre and angle between them is 90° . The other two sides measure 25 metre each and the other three angles are not right angles. Find the area of plot.

- (a) $680 m^2$
- (b) $684 m^2$
- (c) $650 m^2$
- (d) $640 m^2$

Q10. Two pipes A & B can fill a tank in 20 min. and 30 min. respectively. Another pipe C can empty the tank in 10 min. At 8 : 00 am pipe A is opened then after 4 min. B is also opened, At 8 : 10 am C is also opened. At what time tank will be totally full or empty.

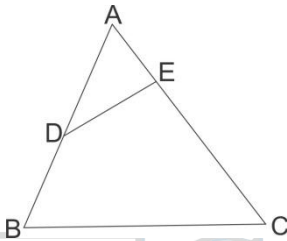
- (a) 8 : 50 am
- (b) 8 : 58 am
- (c) 8 : 30 am
- (d) 8 : 52 am

Q11. In the figure, rectangle ABCD is inscribed in the circle with center at O. The length of side AB is greater than that of side BC. The ratio of the area of the circle to the area of the rectangle ABCD is : $\sqrt{3}$. The line segment DE intersects AB at E. such that $\angle ODC = \angle ADE$, What is the ratio AE : AD



- (a) $1 : \sqrt{3}$
- (b) $1 : \sqrt{2}$
- (c) $\sqrt{13} : 1$
- (d) $1 : 2$

Q12. In the given figure DE is not parallel to BC, if $AD : BD = 2 : 3$, $AE : EC = 3 : 5$ if area of $ADE = 24 \text{ cm}^2$. Find area of BDEC.



- (a) 136 cm^2
- (b) 138 cm^2
- (c) 150 cm^2
- (d) 140 cm^2

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Q13. The population of a city is 7000. If number of male increase by 15% but number of female increase by 19.5% and final population becomes 8140. Find the difference between the initial number of male and female.

- (a) Rs. 3000
- (b) Rs. 4000
- (c) Rs. 5000
- (d) Rs. 2000

Q14. Rs. 735 becomes Rs. 855 of a certain of simple interest in 3 year. If rate of interest was 2% less then, what will be new amount at the end of 5th year.

- (a) Rs. 861.50
- (b) Rs. 861.60
- (c) Rs. 861.70
- (d) Rs. 850.40

Q15. A can finish a work in 16 days but B can finish it in 28 days and C can finish it in 58 days. A, B & C start work together after working 4 days A left, then after 3 more days, B also then in how many days C complete remaining work.

- (a) 25 Days

- (b) 22 Days
- (c) 30 Days
- (d) 40 Days

Q16. There are three container having volume ratio is 4 : 5 : 3 if milk and water ratio is 5 : 4, 7 : 5 and 2 : 1 respectively. $\frac{3}{4}$ th part of first container, 80% mixture of 2nd container and $\frac{1}{3}$ rd part of third container are mixed together, find the approx. percentage of water in the new mixture.

- (a) 40%
- (b) 45%
- (c) 37.5%
- (d) 30%

Q17. Ram sold an article to Shyam at 15% profit Shyam spends some money for repairing and then sold to Rahul at the 20% loss But the cost price of Rahul and Ram is same. Then Shyam how much percent spends on repairing of the total C.P of Shyam.

- (a) 8%
- (b) 12%
- (c) 10%
- (d) 15%

Q18. The difference of C.I and S.I in 2 years is Rs. 8 and in 3 year is Rs. 25 at a certain rate of interest compounded annually. Then find the simple interest at the same rate of interest in 5 year on the same principal.

- (a) 300
- (b) 320
- (c) 350
- (d) 340

Q19. In a triangle ABC, $\angle ABC = 60^\circ$, AB = 8, BC = 6 if BD is angle bisector of $\angle ABC$, find the length of BD.

- (a) $\frac{48}{7}\sqrt{3}$
- (b) $\frac{48}{7}\sqrt{2}$
- (c) $\frac{45}{7}\sqrt{3}$
- (d) $\frac{46}{7}\sqrt{3}$

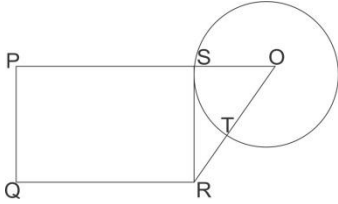
Q20. A circular sheet of paper having radius 25 cm. A sector is cut out from this sheet whose area is only 4% of the total sheet reaming portion of sheet is folded to form a conical shape. Find the radius and height ratio of this cone.

- (a) $\frac{24}{7}$
- (b) $\frac{25}{7}$
- (c) $\frac{23}{7}$
- (d) $\frac{24}{5}$

Q21. A plane divides a right circular cone into parts of equal volume. If the plane is parallel to the base, then the ratio in which the height of cone is divided.

- (a) $1 : (\sqrt[3]{2} - 1)$
- (b) $1 : (\sqrt[3]{3} - 1)$
- (c) $1 : (\sqrt[3]{4} - 1)$
- (d) $1 : (\sqrt[3]{5} - 1)$

Q22. PQRS is a square, SR tangent (at point S) to the circle with centre o and $TR = OS$. Then the ratio of area of the square to the area of the circle.



- (a) $3 : \pi$
- (b) $4 : \pi$
- (c) $5 : \pi$
- (d) $1 : 2$

Q23. $\frac{a^3+3ab^2}{6^3+3a^26} = \frac{76}{49}$ find $\frac{a}{b}$

- (a) 3
- (b) 4
- (c) 5
- (d) 6

Q24. Find the max and min of $6 - \sqrt{2} \cos^2 \theta + \sqrt{3} \sin^2 \theta$

- (a) $6 + \sqrt{3}, 6 - \sqrt{2}$
- (b) $5 + \sqrt{3}, 4 - \sqrt{2}$
- (c) $4 + \sqrt{3}, 3 - \sqrt{2}$
- (d) $7 + \sqrt{5}, 7\sqrt{2}$

Q25. If $48\cos\theta + 14\sin\theta = 50$, find the value of $\sec\theta - \tan\theta$

- (a) $\frac{1}{8}$
- (b) $\frac{1}{7}$
- (c) $\frac{1}{9}$
- (d) $\frac{1}{10}$

NOTE: The solution of this mock will be explained by our experienced faculties on adda247 youtube channel. The solution will be available on 3rd June, 9:45 am. Click Here