CAT Quantitative Aptitude Questions for Practice

Difficulty Level-Difficult

1. S1, S2 and S3 are three contestants for a race of 2,000 metres. If S1 can give S2 a start of 100 metres and S3 a start of 138 metrse, then of how many metres would S2 give a start to S3 in a similar race?
   (a) 80 metres
   (b) 40 metres
   (c) 38 metres
   (d) None of these

2. A hound ran to catch a rabbit 70 m apart. The rabbit has 35 jumps in one minute & the hound has 50 jumps in 2 minutes. If 2 jumps of the rabbit equal 40 cm & one jump of the hound equal 60 cm, in what time will the hound catch the rabbit?
   (a) $\frac{37}{4}$ min.
   (b) $\frac{33}{4}$ min.
   (c) $\frac{35}{4}$ min.
   (d) $\frac{29}{4}$ min

3. 8 litres of wi f the mixture are next drawn a n the cask is now 81 : 19, how at first.)
   (a) 100 litre
   (b) 50 litres
   (c) 80 litres
   (d) 60 litres

4. The digits of a three-digit number A are written in reverse order to form another three digit number B. If $B > A$ and $B - A$ is perfectly divisible by 7, then which of the following is necessarily true?
   (a) $112 < A < 311$
   (b) $100 < A < 299$
   (c) $106 < A < 305$
   (d) $118 < A < 317$

5. A shopkeeper buys 216 packets of biscuits at the rate of Rs. $\frac{x}{8}$ per pkt. He sells 8 dozen at the rate of Rs. 2.36 x per dozen and the rest at $16\frac{x}{4}+1$ paise each. What is the value of profit?
   (a) $19.2 - 3.32x$
   (b) $21 - 3.12x$
   (c) $28 - 3.12x$
   (d) $19 - 3.78x$

6. A Banana seller sells x dozen Bananas. If he had sold 100 dozen Bananas more at 20 paise a dozen less or if he had sold 120 dozen less at 30 paise a dozen more, he would have received the same amount for his Bananas. How many dozens does he sell?
   (a) 2,100
   (b) 1,600
   (c) 2,400
   (d) 1,000

7. There is a right circular cone of base radius 5 cm. This cone is cut into two portions by a plane parallel to its base such that the portion above the plane is a cone of base radius 3 cm and the portion below the plane has a height of 6 cm. Find the volume of the bottom solid.
   (a) 152 π
   (b) 98 π
   (c) 125 π
   (d) 75 π

8. Two runners ride from A to B a distance of 55 km, and the first arrives 30 minutes before the second. They then ride from B to A, the first giving the second a start of 4 km and yet arrive 6 minutes before him. Find the speed of A.
   (a) 10 km/hr
   (b) 13 km/hr
   (c) 11 km/hr
   (d) 17 km/hr

9. A car runnin t P_1, after which it travels wi point P_2; if the accident had Find the distance from point P
   (a) 200 km
   (b) 180 km
   (c) 160 km
   (d) 240 km

10. There are three glasses of equal capacity. The ratio of milk & water in the three is 2 : 5, 3 : 4, 4 : 5. The mixture of these three is put into a bucket. Find ratio of water to milk in the bucket.
   (a) 432 : 401
   (b) 73 : 116
   (c) 77 : 128
   (d) 444 : 521

11. In the figure given below, $ABCD$ is a rectangle. The area of the isosceles right triangle ABE = 7 cm^2; $EC = 3(BE)$. The area of $ABCD$ (in cm^2) is

   (a) 21 cm^2

(b) 28 cm^2
(c) 42 cm^2
(d) 56 cm^2

12. Two container *A* & *B* contain oil. 60% of contents of container *A* was transferred to container *B*. Then 50% contents of container *B* was transferred to *A*. The quantity of oil in container *A* to that of container *B* is now 11 : 7. What was ratio of initial volumes of oil in containers of *A* and *B*?
(a) 5 : 4
(b) 7 : 5
(c) 6 : 5
(d) 8 : 5

13. The first term of a series in A.P. is 17, the last term is $-12\frac{3}{8}$ and the sum of the series is $25\frac{7}{16}$ Find the common difference.
(a) $\frac{-23}{12}$
(b) $\frac{-47}{16}$
(c) $\frac{-53}{14}$
(d) $\frac{-39}{18}$

14. In the given ctive sides. Find the area of th

(a) 24
(b) 12
(c) 16
(d) 8

15. *P*, *Q* & *R* started travelling from the same point *x* in the same direction. *P* & *Q* started at 10:00 a.m. Then *R* started at 12 : 00 p.m. *R* overtook *P* at 2 : 00 p.m. and then doubled his speed. *R* overtook *Q* at 3:00 p.m. The ratio of speed of *P* & *Q* is:
(a) 5 : 7
(b) 5 : 8
(c) 5 : 13
(d) 8 : 13

16. If A gives B Rs. 20 then A has 40% of what B has. Instead if B gives Rs. 40 to A then B will have 40% of what A has. What is the amount originally A has?
    (a) Rs. 60
    (b) Rs. 80
    (c) Rs. 100
    (d) None of these

17. Given α, β are roots of quadratic equation $x^2 + ax + b$ then the roots of the quadratic equation $bx^2 + ax + 1$ would be
    (a) $\frac{1}{a}, \frac{1}{b}$
    (b) α, β
    (c) α + β, α – β
    (d) None

18. In a school, temporary staff of 1000 people was recruited in which 600 were employed in cleaning department while 400 were employed in teaching department. The average salary of each temporary employee is Rs. 600. Each employee in cleaning department earns Rs. 100 more than that in teaching department. What is the salary of each employee in cleaning department?
    (a) 580
    (b) 640
    (c) 540
    (d) 600

19. What is the r
    (a) 2
    (b) 81
    (c) 82
    (d) 0

20. The amount of work in a steel plant increased by 50%. By what percent is it necessary to increase the number of workers to complete the new amount of work in previously planned time, if the productivity of the new labour is 25% more and old labours work with their initial productivity
    (a) 60%
    (b) 66.66%
    (c) 40%
    (d) 33.33%