

QUANT
NEW PATTERN

- The wheat sold by a grocer contained 10% low quality wheat. What quantity of good quality wheat should be added to 150 kg of wheat so that the percentage of low quality wheat becomes 5%?
(a) 85 kg (b) 50 kg
(c) 135 kg (d) 150 kg
- On the cash payment that will settle a bill for 250 chairs at Rs 50 per chair, discount of 20% and 15% with a further discount of 5% is given. The Cash payment is –
(a) Rs 8075 (b) Rs 7025
(c) Rs 8500 (d) None of these
- A shopkeeper sold a TV set for Rs 17,940 with a discount of 8% and gained 19.6%. If no discount is allowed, then what will be his gain per cent?
(a) 25% (b) 26.4%
(c) 24.8% (d) 30%
- Cost of ticket per person for a show for the 1st day is Rs 15, for the second day it is Rs 7.50 and for the 3rd day it is Rs 2.50. Ratio of persons buying the tickets on the three days is 2 : 5 : 1. Find the average cost of ticket per person.
(a) 5 (b) 6
(c) 12 (d) Can't be determined
- Cost of a diamond is directly proportional to square of its weight. A diamond breaks into 4 pieces and the ratio of their weights is 1 : 2 : 3 : 4. After splitting total cost of diamond becomes Rs 1,40,000. What was the initial cost of diamond?
(a) 2 Lakh (b) 2.5 Lakh
(c) 3 Lakh (d) 4.7 Lakh
- X and Y entered into partnership with Rs 700 and Rs 600 respectively. After 3 months, X withdrew $\frac{2}{7}$ of his stock of but after 3 months, he puts back $\frac{3}{5}$ of what he had withdrawn. The profit at the end of the year is Rs 726. How much of this should X receive?
(a) Rs 336 (b) Rs 366
(c) Rs 633 (d) Rs 663
- A man borrows Rs 3000 at 10% compound rate of interest. At the end of each year he pays back Rs 1000. How much amount should he pay at the end of the third year to clear all his dues?
(a) Rs 1425 (b) Rs 1683
(c) Rs 1700 (d) Rs 1720
- A, B and C can do a work in 8, 16 and 24 days respectively. They all begin together. A continues to work till it is finished, C left after 2 days and B, one day before its completion. In what time is the work finished?
(a) 7 days (b) 47/9 days
(c) 6 days (d) Can't be determined
- Two pipes A and B can fill a tank in 20 hrs. and 30 hrs. respectively. Both the pipes are opened to fill the tank but when the tank is one-third full, a leak develops in the tank through which one-fourth water supplied by both pipes goes out. What is the total time taken to fill the tank?
(a) $14\frac{2}{3}$ hrs (b) 15 hrs.
(c) $12\frac{1}{2}$ hrs. (d) $9\frac{1}{2}$ hrs
- Mumbai express left Delhi for Mumbai at 14.30 hrs running at a speed of 60 km/hr. Rajdhani express left Delhi for Mumbai on the same day at 16.30 hrs running at a speed of 80 km/hr. How far from Delhi will the two trains meet?
(a) 400 km (b) 420 km
(c) 480 km (d) 440 km
- A man who can swim 48 m/min in still water, swims 200 m against the current and 200 m with the current. If the difference between those two times is 10 min, find the speed of current.
(a) 30 m/min (b) 29 m/min
(c) 31 m/min (d) 32 m/min
- $(2 - \frac{1}{3})(2 - \frac{3}{5})(2 - \frac{5}{7}) \dots (2 - \frac{997}{999})$ is equal to
(a) $\frac{1001}{999}$ (b) $\frac{999}{1001}$
(c) $\frac{1001}{3}$ (d) $\frac{1001}{5}$
- The value of $\sqrt{\frac{(0.03)^2 + (0.21)^2 + (0.065)^2}{(0.003)^2 + (0.021)^2 + (0.0065)^2}}$ is –
(a) 0.1 (b) 10
(c) 100 (d) 1000
- The radius of the base of a conical vessel is 10 cm and its height is 48cm. This vessel is full of water. This is poured into a cylindrical vessel having base radius 20 cm. the depth of water in the vessel is
(a) 2.1 cm (b) 5.2 cm
(c) 3.6 cm (d) 4 cm
- Water is being pumped out through a circular pipe whose internal diameter is 7cm. If the flow of water is 12 cm per second, how many litres of water is being pumped out in one hour?
(a) 1663.2l (b) 1500 l
(c) 1747.6 l (d) 2000 l
- If $x = (\sqrt{2} + 1)^{\frac{1}{3}}$, the value of $(x^2 - \frac{1}{3})^2$ is
(a) 2 (b) $-\sqrt{2}$

- (c) -2 (d) $3\sqrt{2}$
17. If $x + 2$ is a factor of $(x + 1)^7 + (2x + k)^3$, k being real, then the value of k is:
 (a) -1 (b) -4
 (c) 5 (d) 4
18. The angle of elevation of a pole at a point p is $\tan^{-1}\frac{5}{12}$. On walking 300m towards the pole, the angle of elevation of the pole is $\tan^{-1}\frac{3}{4}$. The height of the pole is
 (a) 300 m (b) $281\frac{1}{4}$ m
 (c) 375m (d) None of these
19. $(\sin A + \operatorname{cosec} A)^2 + (\cos A + \sec A)^2 = ?$
 (a) $7 + \tan^2 A + \cot^2 A$ (b) $4 + \tan^2 A$
 (c) $5 + \tan^2 A$ (d) $6 + \tan^2 A + \cot^2 A$
20. The length of the diagonal BD of the parallelogram $ABCD$ is 18cm. If P Q are the centroid of the ΔABC respectively then the length of the line segment PQ is
 (a) 4 cm (b) 6 cm
 (c) 9 cm (d) 12 cm
21. If an angle of a parallelogram is two third of its adjacent, then the smallest angle of the parallelogram is
 (a) 108° (b) 54°
 (c) 72° (d) 81°
22. The area of a square is equal to that of a rectangle. The length of rectangle is 5 cm more than the side of square and width is 3 cm less than the side of square. The perimeter of the rectangle is
 (a) 17 cm (b) 26 cm
 (c) 30 cm (d) 34 cm

Directions (23-25): Number of toys of five types (A to E) manufactured over the years (in thousands) is given below. Study the table and answer the following questions.

Type	A	B	C	D	E
2002	200	150	78	90	65
2003	150	80	100	105	70
2004	180	175	92	110	85
2005	195	160	120	125	75
2006	220	185	130	135	80

23. The approximate percentage increase in production of D type toys from 2003 to 2005 was
 (a) 5% (b) 19%
 (c) 27% (d) 25%
24. The percentage drop in production of 'A' type of toys from 2002 to 2004 was
 (a) 10% (b) 20%
 (c) 25% (d) 30%
25. The approximate percentage increase of the production of all types of toys from 2005 to 2006 was
 (a) 9% (b) 10%
 (c) 11% (d) 12%