Question Bank

Unit-1

1. Check which of the following numbers are divisible by 11. (i) 35343 (ii) 70476
2. 201×201=_____
3. If the number 97215 * 6 is completely divisible by 11, then the smallest whole number in place of * will be_____
4. The sum of two numbers is 24 and their product is 143. Find the sum of their squares.
5. Find the HCF of 3/16, 5/12, 7/8.
6. Is 1352 divisible by 7?
7. A, B and C start at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and c in 198 seconds, all starting at the same point. After what time will they be at the starting point?
8. Find the smallest number divisible by both 21 and 5.
9. The simplest form of 6/9 is ___/___.
10. Find the greatest number that will divide 148, 246 and 623 leaving reminders 4,6 and 11 respectively.
11. (2/5 ÷ 3/4) * 5/6
12. If the number 97215A6 is divisible by 11, find the smallest whole number in the place of A.
13. 1164 × 128 ÷ 8.008 + 969.007 = ?
14. Is 5457 divisible by 7?
15. 1164 × 128 ÷ 8.008 + 969.007 = ?
16. The sum of four consecutive integers is 1290. The greatest of them is?
17. Find the smallest number divisible by both 12 and 15.
18. 0.75 as a fraction in simplest form is ___/___.
19. (125 ÷ 5) × (36 ÷ 4) - (27 ÷ 3)
20. The H.C.F. of two numbers is 11 and their L.C.M. is 7700. If one of the numbers is 275, then the other is:

Unit-2

1. Average of five numbers is 20. If each number is multiplied by 2, what will be the new average?
2. The average age of husband, wife and their child 3 years ago was 27 years and that of wife and the child 5 years ago was 20 years. The present age of the husband is:
3. If a=2, d=4 then S10= ….
4. Find the 2nd term of the AP whose 7th and 11th terms are respectively 37 and 57.
5. The average marks scored by the students of section A is 82. The average marks scored by students of section B is 77. The average marks of both sections combined is 79.5. If there are 45 students in section A, find the number of students in section B.
6. Which of the following can never be an average of 3 consecutive odd numbers?
7. The average age of a family of 5 members is 24 years. If the youngest member is 8 years old, find the average age of the remaining members.

8. The arithmetic mean between two numbers is 75 and their geometric mean is 21. Find the numbers.
9. The average weight of A, B and C is 45 kg. If the average weight of A and B be 40 kg and that of B and C be 43 kg, then the weight of B is:
10. Find the 10th term of the AP: 2, 7, 12, …
11. If the first term of a GP is 2 and the common ratio is 3, then the fourth term is ____.
12. The first term of an AP is denoted by _____.
13. Sum of first 100 terms for the given A.P 2, 4, 6, 8, ... is
14. Which term of the A.P 10, 20, ... is 100?
15. If the first term of a GP is 2 and the common ratio is 3, then the fourth term is ____.
16. The sum can be calculated as: Sn = n/2 [a + l], where l is the _____ term.
17. Find the sum of the first 20 terms of the AP: 3, 7, 11, …
18. The average weight of 24 students of section A of a class is 58 Kg, whereas the average weight of 26 students of section B of the same class is 60.5 Kg. Find out the average weight of all the 50 students in the class.
19. The average salary of 20 workers in a factory is Rs. 1800. If the salary of the manager is included, the average salary increases by Rs. 60. Find the salary of the manager.
20. The captain of a cricket team of 11 members is 26 years old and the wicket keeper is 3 years older. If the ages of these two are excluded, the average age of the remaining players is one year less than the average age of the whole team. What is the average age of the team?

Unit-3

1. In an election between two candidates, one got 55% of the total valid votes, 20% of the votes were invalid. If the total number of votes was 7500, then find the number of valid votes that the other candidate got.
2. A shopkeeper offers a discount of 15% on the marked price of a product. If the selling price is Rs. 850, find the marked price.
3. Four years ago the average age of P,Q and R was 33 years . At present, age of R is three years less than Q and P is three years older than Q. Then find the age of P one year hence ?
4. A number is increased by 20% and then decreased by 20%. Find the net increase or decrease percent.
5. If a father is 30 years older than his son and the sum of their ages is 50, then the age of the son is _____.
6. If two ratios are equal, they are said to be in _____.
7. 75% of 480 = (?) × 15
8. Two numbers are in the ratio of 4:5.If the difference between these numbers is 24,then find the numbers.
9. Five years ago, the ratio of the ages of X and Y was 2:3. If X is 25 now, what is Y's age?
10. The price of a TV has increased by 20%. If the new price is Rs. 24000, what was the original price?
11. If a father is 30 years older than his son and the sum of their ages is 50, then the age of the son is _____.
12. The ratio of boys to girls in a class is 3:2. If there are 15 boys, there are ____ girls.

13. If A:B = 7:5 and B:C = 9:11, then A:B:C is equal to_____
14. If 5:3=15:x, then find x.
15. The population of a town increases at the rate of 5% annually. If the present population is 4410, what was it 2 years ago?
16. The sum of the ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?
17. At present, the ratio between the ages of Arun and Deepak is 4 : 3. After 6 years, Arun's age will be 26 years. Deepak's present age is _____
18. When 3 is added to the numerator and denominator of a fraction P/Q , it becomes equal to 4/5. If Q-P=2, then P+Q=_____
19. The population of a town increased from 1,75,000 to 2,62,500 in a decade. Find the average percent increase of population per year.
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Unit-4

1. A shopkeeper professes to sell his goods at cost price but uses a 930 gm weight instead of 1 kilogram weight. What will be the profit per cent of the shopkeeper?
2. A sum of money placed at compound interest doubles in 3 years. In how many years will it become four times?
3. Simran started a software business by investing Rs. 50,000. After six months, Nanda joined her with a capital of Rs. 80,000. After 3 years, they earned a profit of Rs. 24,500. What was Simran's share in the profit?
4. What is the difference between the compound interests on Rs. 5000 for 1.5 years at 4% per annum compounded yearly and half-yearly?
5. Mohit lost 18% by selling a bicycle for Rs. 1230.What percent shall he gain or lose by selling it for Rs.1600?
6. The percentage profit earned by selling an article for Rs. 1920 is equal to the percentage loss incurred by selling the same article for Rs. 1280. At what price should the article be sold to make 25% profit?
7. A sum of money was invested at Simple Interest at a certain rate for 3 years. Had it been invested at a 4% higher rate. It would have fetched Rs 480 more. Find the Principal? What is the difference between Simple Interest and Compound Interest?
8. The sum of two numbers is 24 and their product is 143. Find the sum of their squares.
9. A and B start a business by investing Rs. 2000 and Rs. 3000 respectively. What is the ratio of their profits?
10. If eggs are bought 12 for Rs. 10 and sold at 10 for Rs. 12. What is the gain or loss %?
11. Find the compound interest on Rs. 10,000 for 2 years at 10% per annum compounded annually. Also, find the difference between the compound interest and simple interest for the same period.
12. Three partners A, B, and C invested in a business in the ratio 2:3:5. If the total profit is Rs. 4000, find the share of B. A man bought two articles for Rs. 600. He sold one at a profit of 20% and the other at a loss of 10%. If the selling price of both articles is the same, find the cost price of each article.

13. While selling an article for Rs. 18450, a person suffered a loss of 50%. At what price he should have sold the article (in Rs.) to earn a profit of 50%?
14. Find the compound interest on Rs. 8000 for 1 year at 10% per annum compounded half-yearly.
15. A shopkeeper allows a discount of 10% on the marked price of an article and still makes a profit of 20%. If the cost price of the article is Rs. 360, find the marked price.
16. Mr Sharma buys a cooler for Rs. 4500. For how much should he sell it to gain 8%?
17. The rate of interest for the first 3 years is 6% per annum, for the next 4 years 7% per annum and for the period beyond 7 years is 7.5% per annum. If a man lends out Rs 2400 for 11 years, find the total interest earned by him?
18. A's salary increases by 20 % and then decreases by 20%. What is the net percentage change in A's salary?
19. Mohan bought an article at 25% less of the marked price and sold it at 15% more than the marked price. Find the profit earned by him.
20. Ayaan bought 30 kg of rice at the rate of Rs.9.50/kg and 40 kg rice at the rate of Rs.8.50/kg and mixed them. He sold the mixture at the rate of 10.90/kg. Find the total profit or loss in the transaction.

Unit-5

1. A and B can do a piece of work in 12 days and 15 days respectively. They undertook to do it for Rs. 450. With the help of C, they completed the work in 6 days. Find the share of C.
2. A pipe can fill a cistern in 10 hours. Due to a leakage, it takes 15 hours to fill the cistern. If the cistern is full, how long will the leakage take to empty it?
3. 20 buckets can fill a tank when the capacity of each bucket is 12 liters. If the capacity of each bucket is 10 liters, find the number of buckets required to fill the tank.
4. A car covers a certain distance at a speed of 60 km/h in 4 hours. How long will it take to cover the same distance at a speed of 80 km/h?
5. The speed of the boat in still water is 5 km/hr. If the speed of boat against the stream is 3 km/hr, what is the speed of the stream?
6. A man walks at a speed of 5 km/h. How much time will he take to cover a distance of 25 km?
7. Two pipes A and B can fill a tank in 20 and 30 minutes respectively. If both pipes are opened together, how long will it take to fill the tank?
8. A boat covers a distance downstream in 1 hour, while it comes back in 1 ½ hours. If the speed of the stream is 3 kmph, what is the speed of the boat in still water?
9. A can do a piece of work in 20 days. He works at it for 5 days and then B finishes it in 10 days. How long will they take to complete the work if they work together?
10. A woman can row upstream at 16 km/hr and downstream at 26 km/hr. What is the speed of the stream?
11. If a man is traveling at 36 km/h, then how much distance will he cover in 30 sec?
12. It takes two pipes A and B, running together, to fill a tank in 6 minutes. It takes A 5 minutes less than B to fill the tank, then what will be the time taken by B alone to fill the tank?
13. If eight men and 12 boys can complete a piece of work in twelve days, in what time will 40 men and 45 boys complete another piece of work three times as great, supposing sixteen men can do as much work in 8 hours as 12 boys can do in 24 hours?

14. A pipe can fill a tank in 6 hours and another pipe can empty the tank in 12 hours. If both the pipes are opened at the same time, the tank can be filled in how many hours?
15. A boat is moving 2 km against the current of the stream in 1 hour and moves 1 km in the direction of the current in 10 minutes. How long will a boat take to go 5 km in stationary water?
16. An airplane travels distances 2500 km, 1200 km and 500 km at the rate of 500 km/hr, 400 km/hr and 250 km/hr respectively. What will be the average speed of an airplane?
17. Anita and Veena are running in opposite directions. Speed of Anita and Veena is 8 km/hr and 10 km/hr respectively. Find out the distance between them after 2.5 hours.
18. A train is moving with a speed of 92.4 km/hr. How many meters will it cover in 10 minutes?
19. A alone can do a piece of work in 6 days and B alone in 8 days. A and B undertook to do it for Rs. 3200. With the help of C, they completed the work in 3 days. How much is to be paid to C?
20. If a man covers 10.2 km in 3 hours, how much distance will he cover in 5 hours?