Averages

1m	2m	3m	4m	5m	Total
–	1(U)	–	–	1(U)	7

1 MARK QUESTIONS

1. In a class of 10 students, the marks obtained in mathematics are 88, 71, 35, 30, 46, 92, 67, 53, 76 and 28. What is the average marks?

2. The rainfall in a week in Bangalore are 18mm, 25mm, 20mm, 9mm, 30mm, 10mm, 5mm. Find the average rainfall.

3. The weight of 6 men are 90 kg, 70.5 kg, 56 kg, 45.5 kg, 85 kg and 78 kg. Find average weight.

4. The heigh tof 10 girls in dance class are 90 cm, 95 cm, 100 cm, 98 cm, 102 cm, 110 cm, 105 cm, 97 cm, 102 cm, 99 cm. Find the average height.

5. The age of 10 boys in a class are 4.3, 4.4, 4, 4.2, 4.3, 4.5, 4.7, 4.6, 4.5 and 4.8 years. What is the average age?

6. The average age of 10 boys in a class is 13 years. What is the sum of their ages?

2 MARKS QUESTIONS

1. The average age of 7 member of a family is 18 years. If the head of the family is excluded the average age of the ret of the member would fall to 13 years. What is the age of the head of the family?

2. The average marks of 15 students of a class is 45. A student also has securred 50 marks leaves the classroom. Find the average marks of the remaining 14 students.

3. The average age of 10 students is 6 years. The sum of the ages of 9 of them is 52 years. Find the age of 10th student.

4. The average age of 12 boys is 8 years. Another boy 21 years. Join the group. Find the average of the new group.

5. The average score of 20 boys is 60% and average score of 30 girls is 70%. Find the combined average score.

6. The average height of a group of people is 6 feet. 10 more people are added with an average height 5 feet. Find the average height of the group of people consisting of 60 people.

7. Ram and Rahim went up a hill at a speed of 20 kmph and both of them came tumbling down the same distance at a speed of 30 kmph. Find the average speed for the round trip.

8. Ramesh has 4 Kannada, 5 English, 6 Maths books. Each Kannada book cost ₹8.50, English ₹10.50 and Maths ₹15.00. Find the average cost per book of all 3 subjects.

9. 5 kg of sugar at the rate of ₹15/kg, 8 kg of wheat at the ₹22/kg, 7 kg of rice at ₹35/kg and 4 kg of oil at ₹85/kg. What is the average price/kg of all commudity.

10. The average weight of 12 girls in a class is 4 feet and the average height of 8 boys is 5 feet. Find the combined average height of both girls and boys.

11. The average score of 35 girls is 80 and the average score of boys is 68. find the average score of both boys and girls together.

12. Thirty five boys and sixty five girls are tested for their numerical abilities. The boys have an average score of 80% and the girls score an average of 90%. Calculate the average score of boys and girls combined.

13. A train runs at a speed of 28 kmph for 4 hours at 30 kmph for 5 hours and the remaining 40 kms in 1 hour. What is the total distance and what is the average speed/hr.

14. Rekha purchased 3 varieties of cooking oil, 5 kg of oil at 100/kg & 6/kg of oil at ₹110/kg & 9/kg of oil at ₹120/kg. what is the average price of the oil/kg.

15. The profit of a business firm for the 5 years are ₹17,598, ₹20,703, ₹10,085, ₹23,375 and ₹16,315. Find the average profit.

16. The average marks of a group of students is 50. Another group of 15 students have an average marks of 60. What is the average marks of 80 students.

17. The average weight of 10 boys is 30 kg. If a 11th boy is added the average weight increased by 2 kg. find the weight of 11th boy.

18. A survey in a village shows the following results.

No. of mens	Avg. weight in kg
1st batch 15	50
2nd batch 20	55
3rd batch 25	60
4th batch x	65
5th batch 10	70

If the combined average of all the batch is 60 kg. Find the value of 'x'?

19. The average age of 10 students is 14 years. Among them the average age of 4 student is 2 years. Find the average of the remaining students.

20. The average weight of a group of 35 people is 47.5 kg. If 36th person is added to the group. The average weight increased by 0.5 kg. What is the weight of the 36th person?

3 MARKS QUESTIONS

1. The average age of Ashok and Abdul is 45 years. The average of Abdul and Anthony is 50 years and the average age of Anthony and Ashok is 35 years.Find the age of Abdul, Ashok and Anthony.

2. A book seller bought 228 note books at an average price of ₹8.50 in which 80 books he bought at ₹7.50 each and 84 books at ₹10.40 each. Find the price of the remaining books per unit.

3. Of a number of persons donating to a charity 10 persons gave ₹99 each, 25 give ₹50 each, 33 gave ₹25 each. 46 gave 10 each and rest gave ₹5 each. It was found that the average donation is ₹20/-. How many donors are there?

4. A painter works 8 hrs on monday, 9 hrs on tuesday, 7½ hrs on wednesday, 7½hrs on thursday, 6 hrs on friday and 10 hrs on saturday. He is paid on hourly wagesat the rate of ₹8.50. What is his average daily earning.

5. Calculate the average daily wages earned by 100 workers in a factory using the following data.

Daily wage	70−80	80−90	90−100	100−110	110−120
No. of workers	18	7	23	44	8

6. A merchant buys two types of chalk powder A and B at ₹5.70 and ₹6.40 per kg respectively. He mixes them in the proportion 4.3 and sells the mixture at ₹7.20/kg. What is his profit and profit %?

7. A train travels at an average speed of 50 mph for 40 minutes and then travels at an average of 80 mph for the next 30 minutes. Find the average speed of the entire distance travelled.

8. A farmer walks from village A to village B at the speed 10 kmph and returned back in 15 kmph. Find his average speed of the entire journey.

9. The average weight of a group containing 25 persons is 70 kg. 5 persons with an average weight 63 kg leave the group and 4 persons with weight 72 kg, 78 kkg, 70 kg and 73 kg joins the group. Find the average weight of the new group.

10. The average weight of 40 students is 163 cms. On a particular day 3 students A, B and C were absent and the average of the 37 students was found to be 162 cms. If A and B have equal heights and the height of 'C' be 2 cms less than that of A. Find the heights of A, B and C.

11. A dental clinic purchased a certain number of chairs at an average price of ₹190 each. The average price of 30 chairs was ₹175 and that of the remaining chairs was ₹200/-. Find the total number of chairs the clinic purchased.

12. Ramesh bought 4 shirts in a discount sale. the average price of the shirt being ₹150, the average price of two polyster shirts is ₹170. Of the price of the two remaining cotton shirts is in the ratio 7:6. Find the price of the cheapest cotton shirt.

13. Calculate the arithmetic average mark from the following data.

Marks	45	75	60	55	93
No. of workers	11	10	15	12	2

14. The average height of a group of boys and girls is 38 kg. the average weight of the boys is 42 kgs and that of the girls is 33 kg. If the number of girls is 20. Find the number of boys.

15. 3 test in Economics, 2 in Kannada, 4 in Accounts and 5 in English are conducted. The average mark scored by Mr. Suresh in Economics is 60, in Kannada 56 and that of account is 45. If the average marks of all the test taken together is 48. Find the average marks scored by him in English.

5 MARKS QUESTIONS

1. Rajhamsa bus covers the distance of 360 km between Bengaluru and Chennai in 5 hrs 45 min with a stoppage of 10 min for coffee and tiffin and a stoppage of 3 min at Bannerghatta Bus Stop and 2 stoppages of 5 min each at hosur and Dharampuri bus stop respectively. What is the average speed of the bus?

2. Govind bought 11 bags in the wholesale market at an average price of ₹450 each. In which the price of 7 leather bags was ₹575 each. The price of the remaining 4 cotton bags all in the increasing arithmetic progression having the price of the costliest cotton bag was ₹300/-. Find the price of the cheapest cotton bag.

3. An aeroplane flies once round a square whose side is 100 km long taking the first at 100 kmph, second at 200 kmph, third at 300 kmph and the fourth at 400 kmph. Find the average speed of the plane in its flight along the square.

4. Mr. Raju purchased 17 english books in a discount sale, the average price of the book being ₹53. The average price of 11 english books is ₹71. If the average price of 6 different english story books from an increasing arithmetic progression with the last book price being ₹25. Find the price of the cheapest english story book?

5. The average of A and B are 18 years that of B & C is 17 years. And that of C and A is 20 years. What is the ages of A, B and C?

6. Ten years ago the average age of the family of 4 members were 24 years. Two children have been born. The average age of the family is same as tody. What is the present age of two children assuming that the children's age differ by 2 years?

7. An exporter of coffee powder mixes 60 kg of superior grade coffee at ₹300/kg and 40 kg of low grade at ₹180/kg. He would like to add a profit margin of 20% on his cost. What will be the price of the mixed coffee powder.

8. The average weight of a group of boys and girls is 38 kg. the average weight of the boys in 42 kg and that of the girls is 33 kg. If the number of boys is 25. Find the number of girls.

9. The average age of 10 students in a class increases by 4.8 months. When a boy of age 6 years is replaced by a new boy. What is the age of the new boy.

10. A batsman average score for a number of innings was 21.75 runs per innings. In the next three innings he scored 28, 34 and 37 runs. And his average for all the inning was revised by 1.125 runs. How many inning did he play.

11. A batsman find that by getting out for a duck (0 runs) in the 11th inning of his test matches. His average of the previous 10 inning decreased by 5 runs. What is the average after the 11th innings?

12. Find the total wage earned per month by 564 workers in a factory given the following information; 38 workers get ₹8.5 to 12.5, 46 workers get ₹12.5 to 16.5, 120 workers get ₹16.5 to 20.5,360 workers get ₹20.5 to 24.5 daily wages (assuming that a month has 30 days and all the day they work?)

(Hint: Take the value $\dfrac{8.5+12.5}{2}$ = ₹10.5/day for 38 workers and so on)

13. A batsman finds that by scoring a century in the 11th innings of his test matches he has bettered his average of the previous ten innings by 5 run. What is the average after the 11th innings.

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