Ques 1.

Six bells commencing tolling together toll at intervals of 2, 3, 6, 8,10 and 12 seconds respectively.In 30 minutes how many times do they toll together?

Ans 1. L.C.M of 2, 4, 6, 8, 10 and 12 is 120.

so, the bells will toll together after 120 seconds i.e. 2 minutes .

In 30 minutes the bells toll together 30/2 + 1 times i.e. times.

Ques 2.

The H.C.F of two numbers is 11 and their L.C.M is 7700. If one of these numbers is 275, then find the other number.

Ans 2. Product of two number s = product of their H.C.F. and L.C.M. required number = 11 X 7700/275 = 308

Ques 3.

A gardener had a number of shrubs to plant in rows . At first he tried to plant 8, then 12 and then 16 in a row but he always had 3 shrubs left with him . On trying 7 shrubs he was left with none.Find the total number of shrubs.

Ans 3. L.C.M of 8,12,16 = 48 Now, 48 x 1 + 3 = 51 - not divisible by 7 48 x 2 + 3 = 99 - not divisible by 7 48 x 3 + 3 = 147 - not divisible by 7 Required number = 147

Ques 4.

Three measuring rods are 64 cm,80 cm and 96 cm in length . What is the least length of cloth that can can be measured exact number of times using any one of these rods?

(a) 9.60 m

(b) 8 m

(c) 9.60 cm

(d) 96 m

200 Important Quantitative Aptitude Questions

Ques 5.

The sum of two numbers is 528 and their H.C.F is 33. What is the number of pairs of such numbers

?

(a) 4

(b) 12

(c) 8

(d) 6 Ans 5. 4

Hint : Let the number be 33x and 33y where x and y are co-prime.

Ques 6.

The largest numbers which divides 30, 78 and 102 to leave the same remainder in each case is

(a) 24

(b) 20

(c) 8

(d) 16

Ans 6. 24

Ques 7.

Find the least number of five digits which is exactly divisible by 12, 15 and 18.

(a) 1080

(b) 10080

(c) 10025

(d) 11080

Ans 7.10080

Hint : The least number of 5 digits is 10000. L.C.M. of 12, 15 and 18 is 180 . On dividing 10000 is 100.

=> 10000 + 180- 100 = 10080 is divisible by 180.

Ques 8.

The smallest number which when divided by 20, 25, 35 and 40 leaves a remainder of 14, 19,29 and 34 respectively is

(a) 1994

(b) 1494

(c) 1394

(d) 1496

Ans8.1394

Hint: Note that 20 -4 = 6; 25 -19 = 6;35-29= 6;40- 34 =

6 Required number = L.C.M. of (20, 25, 35 and 40)-6

Ques 9.

Find the greatest unit of time with which 5 hours 15 minutes and 8 hours 24 minutes can both be represented as integers.

(a) 70 min.

(b) 63 min.

(c) 48 min.

(d) 42 min.

Ans 9. 63 min.

Ques 10.

The L.C.M of two numbers is 14 times their H.C.F . The sum of the L.C.M. and the H.C.F . is 600. If one number is 280 , then the other number is

(a) 40

(b) 60

(c) 80

(d) 100

Ans 10. 80

Average

Ques l.The average weight of 45 passenger on board an aircraft is 50 kg. If the weight of 5 members of the crew is added, the average is reduced by half kilogram . What is the average weight of the crew members?

Ans 1. Total weight of 45 passenger = 45 x 50 = 2250 kg Total weight of 45 passenger and 5 crews = 50 x 49.5 = 2475 kg

Total weight of 5 crews = 2475-2250 = 225kg Average weight of 5 crews = 225/5 = 45kg.

Ques 2.A man spends Rs 1,800 per month on an average for the first four mouths and Rs 2,000 per month for the nest 8 months and saves Rs 5,600 a year. What is his average monthly income ?

Ans 2. Total expenditure during first four months = 1,800 x 4 = Rs 7,200 Total expenditure during the next 8 months = 2,000 x 8 = Rs 16,000 Saving = Rs 5,600

Total of expenditure and saving (equal to income the year) = 7,200+ 16,000 + 5,600=Rs 28,800 Average monthly income = 28,800 /12 = Rs 2,400

Ques 3.The average of 5 numbers is 9 and the average of the last three numbers is 5.Find the average of the first two numbers.

Ans 3.Sum of 5 numbers = 9 x 5 = 45

Sum of last three numbers = 15

The average of 1st two numbers = 45-15/2 = 30/2 = 15.

Ques 4.A certain company employed 600 men and 400 women and the average wage was 2.55

per hour.If a women got 50 paise less than a man, what were their wages per hour ?

(a) Man rs 3.00,Woman Rs 2.50

(b) Man Rs 3.50, Woman Rs 3.00

(c) Man Rs 2.75, Woman Rs 2.25

(d) Man Rs 3.25, Woman Rs 2.75

Ans 4. Man = Rs 2.75, woman = Rs 2.25

Ques 5.A man wnt uphill with a speed of 20 km.p.h. and came downhill with a speed of 30 km p.h.

The average speed for his journey was

(a) 25 km. p.h.

(b) 22 1/2 km. p.h.

(c) 24 km. p.h.

(d) 25 1/2 km. p.h.

Ans 5. 24 km.p.h.

2x4

kM' homy. - -f-

Ques 6.A ship sails out to a mark at the rate of 10 km per hour and sails back at th rate of 15 km

per hour. What is its average rate of sailing?

(a) 10 km. p.h.

(b) 12 km. p.h.

(c) 15 km. p.h.

(d) 11 km. p.h.

Ans 6. 12 km. p.h.

Ques 7.One third of a certain jaurney was covered at a rate of 25 km per hour, one fourth at the rate of 30 km per hour and the rest at the rate of 50 km per hour. The average speed for the whole journey is

(a) 33 1/3 km/hr

(b) 66 1/3 km/hr

(c) 36 1/6 km/hr

(d) 63 1/3 km/hr Ans 7.

Ques 8.Monica's average expenses for 4 days is Rs 6.0. She spent Rs 7.70 on first day, Rs 6.30 on second day. If she spent 10 on third day , How much did she spend on the 4th day?

(a) Rs 2

(b) Rs 3

(c) Rs 4

(d) Rs 0 Ans 8. Rs 0

Hint : Required Amount = 24 - (7.70 + 6.30 + 10)

Ques 9.The average age of A and B is 20 years. If C were to replace A, the average would be 19 and id C were to replace B,the average would be 21 . The ages of A, B and C are (in years)

(a) 22, 17,16

(b) 22, 18, 20

(c) 30, 18, 15

(d) 23, 17 ,15 Ans 9. 22, 18, 20 Hint : A + B = 2 x 20 C + B = 2 x 19

A + C = 2 x 21

Ques 10.The average age of a board of 8 trustless remains the same as it was 3 years ago, when

one of them is replaced by a new member. The new member is younger than the truetee in whose place he has been replaced by

(a) 24 years

(b)26

years (C)

47 years

(d) 32

years

Ans 10. 24 years

Ques 1.

Ans 1.

Equations

Ques 2.What number should be subtracted from each of the numbers 18,24,28,38, so that the remainders may be in proportion ?

Ans 2. Let the number be x.

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Oh. M* ■* 12- X- 2

Ques 3.The average age of three girls is 24 years.IF their ages are in the ratio of 5 : 6 : 7.find the age of the youngest girl.

Ans 3. Let the respective ages of the three girls be 5x, 6x and 7x

Ques 4.X,Y and Z share a sum of money in the ratio of 11 : 13 : 16 . If Z receives Rs 25 more than X, then Find the total money shared.

Ans 4. Let the respective shares of X, Y and Z be Rs 11x , 13x and 16x respectively

Ques 5.The speeds of three cars are in the ratio of 3 : 4 :5 find the ratio of the time taken by them to travel the same distance.

Ans 5. As distance is constant, time is inversely proportion to speed.

= 2.0: is: 12-

Ques 6.An alloy is to contain copper and nickel in the ratio of 3 : 7. Find the amount (in kg) of copper required to be melted with 28 kg of nickel to from the alloy.

Ans 6.

3 y - ^

6L|

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I2S.

Ques 7.The ratio of income of A to that of B is 7 : 5 and the expenditure of A to that of B is 3 :2 . If, at the end of the year,each saves Rs. 500, find the income of A.

Ans 7. Let the income of A and B be 7x and 5x Let the expenditure of A and B be 3y and 2y 7x - 3y

= Rs 500 ...(i) and 5x - 2y = Rs 500 ...(ii)

Multiplying equation (i) and (ii) by 2 and 3 respectively and subtracting , we ge x = 500 • income of A = 7 X 500 = Rs 3500.

Ques 8.Rs 200 contained in a box consists of one rupee,50 paise and 25 paise coins in the ratio of 3 : 4 ; 5 Find the number and value of 50 paise coins.

Ans 8. Value of 1 Re coins : Value of 50 paise coins : Value of 25 paise coins

Ques 9.40% of a man's daily output is equal to 60% of a second man's daily output. If the first man turns out 1440 toys everyday,the second man's output in terms of number of toys is

(a) 960

(b) 1000

(c) 840

(d) 900

Ans 9. (a) 960

Ques 10.24 liters of a mixture contain milk and water in the ratio of 1 : 5 . If 6 liters of the mixture are replaced by 6 liters of milk, the ratio of milk to water in the new mixture will be

(a) 3 : 5

(b) 3 : 4

(c) 5 : 6

(d) 2 : 3 Ans 10 . 3 : 5