**Postal Assistant aptitude Question papers**

 **1.** The average age of 20 students in a class is 20. When the age of their class teacher commuted with the total age of students, their average age, including the class teacher's raises to 21. If so, what is the age of the class teacher ?

(a) 40

(b) 36

(c) 41 **(Ans)**

(d) 44

**Answer :** Total age of 20 students = 20 \* 20 = 400.

After inclusion of teacher, total age = 21 [No of members] \* 21 [New average age] = 441.

Age of new entrant [teacher] = 441 - 400 = 41

**2.**  Rajan travels from Kannur to Kozhikode by a car at speed of 60 Km/hour and returns back by hiring a gipsy at a speed of 50 Km/ hour.  Then what will be the average speed of his vehicles through out their to and fro journey. ?

(a) 54-6/11 km/hour  **(Ans)**

(b) 57 km/hour

(c) 55-6/11 Km/hour

(d) 54-5/11 Km/hour

**Answer :**If 'a' & 'b' are the speed in to and fro journey of vehicles By short method formula to arrive average speed = 2ab/a+b

ie,   2\*60\*50 /60+50  =  6000/110 = 54-6/11

**3.** Mr. X complete a piece of work with in 8 hours and whereas Mr. Y complete the same piece of work in 6 hours. If both Mr. X & Y operate the same work jointly, in how may hours they complete the same work ?

(a) 7/14 Hrs

(b) 24/7 Hrs   **(Ans)**

(c) 5 hours

(d) Not given

**Answer :**If 'x' and 'y' be the number of days required individually by two persons, then by Short method formula, the number of days required to complete the same work by joining them is =   xy    =  6\*8   =   48
                                                                x+y        6+8       14

= 24/7    [If three persons worked the short method formula becomes as          xyz        .]
                                                                                                        xy + xz + zx

**4.**  Raman & Krishnan will complete a job in 6 days and 12 days respectively according to their capacity. Govindan will complete the same of piece of work in a single day that which Raman & Krishnan both do in a single day. If Krishnan and Govindan wishes to complete the same work, in how many days they take to finish the work

(a) 5 days

(b) 3 days   **(Ans)**

(c) 4 days

(d) 4.5 days

**Answer :**Here Raman and Krishnan do the work in  6\*12  days ie  72  ie in 4 days
                                                                         6+12             18

It is stated that the job of Raman & Krishnan in one day is equals to Govindan's one day work. Otherwise it means that Govindan complete the assigned work in 4 days. If Krishnan & Govindan work jointly, the work will be completed in

12\*4  =  48 = 3 days
12+4      16

**5.** A train running in 90Km/hour, having 100 metres long, crosses a train running in another track in opposite direction with speed of 54 Km per hours having 140 metres. How many seconds will take the trains to cross each other fully ?

(a) 9 seconds

(b) 6 seconds    **(Ans)**

(c) 8 seconds

(d) No given

**Answer :**Here we want to calculate the relative speed or velocity. Since the trains are moving in opposite directions the relative speed will arrive by summing up i.e. 90 Km hr + 54 Km/hr = ie. 144 Km/hour = 40 m/secs [to convert Km/hour to metres/seconds we want to multiply the term by 5/18.]

The total distance of crossing, [i.e. length of two trains] = 100m + 140m = 240m

The time required to cross 240m by 40m/secs speed = 240/40 = 6 seconds [Conversion of metres/seconds to KM/seconds will be arrived by multiplying by 18/5.]