**Section B – Aptitude**

10 questions | 45 minutes

Each question carries one mark

**1)** In most states in India the law for the sale of alcoholic beverages provides that beer cannot be sold after a certain hour. However, in some States the law permits a customer to consume, after the deadline, what has been sold before the curfew. In a certain bar 2 men ordered sufficient beer to cover their probable requirements in anticipation of the curfew. One man ordered and paid for 5 bottles and the other man ordered and paid for 3 bottles. But as the curfew started, an old friend of both the men approached and requested them to share the eight bottles of beer between them. The friend thanked the two men and put down Rs 8 in payment for the beer he had consumed, asking them to share the money in proportion to the quantity of beer they have contributed to him. How should this money be equitably divided between the two men?

a. Rs 7 and Rs 1

b. Rs 6 and Rs 2

c. Rs 5 and Rs 3

d. Rs 4 and Rs 3

Correct Option a

**Explanation:**

The three men shared the beer equally and so each drank the contents of 2(2/3) bottles. Therefore the man who had brought 5 bottles contributed 2(1/3) and the man who had paid for 3 bottles contributed 1/3 of the bottles, to make the third man’s share.

The first man’s contribution is 7 times that of the second and therefore he gets Rs 7 and the latter Rs 1.

2) Two trains start from two opposite directions towards each other. The stations from which they start are 50 miles apart. Both the trains start at the same time on a single track. A falcon which is sitting on one train, starts at the same time towards the other train , as soon as it reaches the second one, it flies back to the first train and so on and so forth. It continues to do so, flying backwards and forwards from one train to the other until the trains meet. Both the trains travel at a speed of 25 miles per hour, and the bird flies at 100 miles per hour. How many miles will the falcon have flown before the trains meet?

a. 75 miles

b. 100 miles

c. 150 miles

d. 200 miles

Correct option b

**Explanation:**

At 25 miles/ hr both trains will take 1 hr to meet or cover the distance of 50 miles.In 1 hr the falcon can travel 100 miles.

3) An unscrupulous trader decided to make some extra profit on coffee

He bought one type of coffee powder at Rs. 32 a kilo and mixed some of it with a better quality of

Coffee powder bought at Rs. 40 a kilo, and he sold the blend at Rs. 43 a kilo.

That gave him a profit of 25 per cent on the cost.

How many kilos of each kind must he use to make a blend of a hundred kilos weight?

4) When a number is multiplied by 13, it becomes greater to 105 by an amount with which it is lesser to 105 by now. What is the number?

5) Four Friends in the sixth grade were sharing a pizza. They decided that the oldest friend would get the extra piece. Randy is two months older than Greg, who is three months younger than Ned. Kent is one month older than Greg. Who should get the extra piece of pizza?

6) A box is filled with 71 candies of the following flavours: lemon, raspberry, orange and grape. There are twice as many lemon as raspberry candies. The orange-flavoured candy count is one less than the raspberry candy count and there are six less grape candies than lemon candies. How many candies do you have to take from the box to have atleast two of one flavour?

7) A standard-sized cigarette can be rolled out of 6 standard-sized cigarette butts. How many cigarettes can be made and smoked from 36 butts?

8) A student reached his school late by 20 minutes by travelling at the speed of 9 kmph. Had he travelled at the speed of 12 kmph, he would have reached hi school 20 minutes early. Find the distance between his house and the school.

9) You are given two ropes and a lighter. This is the only equipment you can use. If you light one end of the rope, it will take exactly one hour to burn all the way to the other end. But it doesn’t have to burn at a uniform rate. The second rope will also take an hour to burn from one end to the other, but may do it at some varying rate. Now you are asked to measure a period of 45 minutes. How will you do it?

10) Four friends (Alfred, Becky, Charlie, and David) wish to cross the old bridge over the river. However it is dark and the bridge is not very safe. They decide that no more than two of them may cross at a time and that the people crossing should carry a torch with them. Alfred is rather nimble on his feet and can cross the bridge in only one minute. Becky is a bit slower and takes two minutes. Charlie is a little overweight, so takes four minutes. David is the slowest due to a sprained ankle. He takes eight minutes. They only have one torch between them, so when crossing in a pair, they must stick together, thus crossing at the speed of the slower person. Devise a scheme for the four friends (and their torch) to cross the river in as short a time as possible.