



# SmartKeeda

The Question Bank

Presents

## TestZone

India's least priced Test Series platform

JOIN

### 12 Month Plan

2017-18 All Test Series

@ Just

# ₹ 399/-

300+ Full Length Tests

- Brilliant Test Analysis
- Excellent Content
- Unmatched Explanations

JOIN NOW

## Problems on trains Questions for Bank Clerk Pre Exams.

### Problems on Trains Quiz 4

Directions: Kindly study the following Questions carefully and choose the right answer:

1. A goods train leaves a station at a certain time and at a fixed speed. After 8 hours, an express train leaves the same station and moves in the same direction at a uniform speed of 120 kmph, this train catches up the goods train in 7 hours. Find the speed of the goods train.

- A. 50                      B. 48                      C. 56                      D. 60                      E. None of these

2. Two trains are running on parallel lines in the same direction at speeds of 60 km/h and 35 km/h respectively. The faster train crosses a man in the slower train in 54 second. If the length of the slower train is  $\frac{4}{5}$ th of the faster train, find the length of the slower train.

- A. 250 m                      B. 375 m                      C. 450 m                      D. 396 m                      E. None of these

3. A train started from point A at a speed of 60 km/hr and after 2 hours another train of same length started from A at a speed of 80 km/hr in the same direction as the first one. After how much time the second train will meet the first train?

- A. 5 hours                      B. 3 hours                      C. 6 hours                      D. 8 hours                      E. None of these

4. The ratio of the length of two trains X and Y is 4 : 7 and the ratio of the time taken by both trains to cross a man standing on a platform is 2 : 3. If the speed of the train X is 36 km/h find the speed of the train Y in m/s.

- A.  $\frac{35}{3}$  m/s                      B. 30 m/s                      C.  $\frac{20}{3}$  m/s                      D. 15 m/s                      E. None of these

5. A pilot flies an aircraft at a certain speed for a distance of 800 km. He could have saved 40 min by increasing the average speed of the plane by 40 km/h. Find the average speed of the aircraft.

- A. 200 Km/h                      B. 300 Km/h                      C. 240 Km/h                      D. 160 Km/h                      E. None of these

6. The ratio of the speeds of the train and the man is 6 : 1. The length of the train is 650m and crosses a pole in 1 minute 5 seconds. In how much time will the man cross the 240m long platform?

- A. 1 minute 24 second                      B. 2 minutes 30 seconds                      C. 2 minutes  
D. 2 minutes 24 seconds                      E. 3 minutes

7. Two trains each having a length of 160 meters moving in opposite direction crossed each other in 9 seconds. If one train crossed a 200 metre long platform in 27 seconds, then the ratio of their speeds is:

- A. 3 : 4                      B. 5 : 3                      C. 3 : 5                      D. 5 : 7                      E. None of these

8. On a station, a train is stopped for 6 minutes, but after this its speed is increased by 4 km/hr. When the train covers 36 km it manages its delay. What is the initial speed of the train?

- A. 32 km/h                      B. 36 km/h                      C. 40 km/h                      D. 42 km/h                      E. None of these

9. A train of length 200 mtr takes 125 sec to cross the tunnel of length 250 mtr. what's the speed of the train?

- A. 110                      B. 150                      C. 125                      D. 130                      E. None of these

10. A train travelling at the speed of 90 kmph crosses a platform in 60 seconds. What is the length of the train?

- A. Can't be determined                      B. 600 metres                      C. 450 metres  
D. 540 metres                      E. None of these

SmartKeeda  
The Question Bank

**Correct Answers:**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
C	E	C	A	A	D	C	B	C	A

**Explanations:**

**1.** Let the speed of the goods train be  $x$  kmph.

Distance covered by goods train in 15 hrs = Distance covered by express train in 7 hrs

So,  $15x = 7 \times 120$  or  $x = 56$ .

So, Speed of goods train = 56 kmph.

Hence, option C is correct.

**2.** According to the question,

$$(60 - 35) \times \frac{5}{18} = \frac{D}{54}$$

$D = 375$  m

Length of the faster train = 375m,

Length of the slower train

$$= 375 \times \frac{4}{5} = 300 \text{ m}$$

Hence, option E is correct.

**3.** Let after  $x$  hours the second train will meet the first train.

Because distance is same,

$$S_1 t_1 = S_2 t_2$$

$$60(x + 2) = 80 \times x$$

$$60x + 120 = 80x$$

$$80x - 60x = 120$$

$$20x = 120$$

$$x = 6 \text{ hours}$$

Hence, option C is correct.

**4.** Let the length of train X =  $4a$ , time =  $2b$

$$\text{Speed} = \frac{4a}{2b}$$

Let the length of train Y =  $7a$ , time =  $3b$

$$\text{Speed} = \frac{7a}{3b}$$

$$\text{Ratio of the speed} = \frac{4a/2b}{(7a/3b)} = 6 : 7$$

$$\text{Speed of train Y} = \frac{36}{6} \times 7 = 42 \text{ km/h}$$

$$\text{in m/s} = 42 \times \frac{5}{18} = \frac{35}{3} \text{ m/s}$$

Hence, option A is correct.

**5.** Let the average speed be  $a$  km/hr

$$\text{Time taken by aircraft (t)} = \frac{800}{a}$$

$$\text{As per the condition : } t - \frac{40}{60} = \frac{800}{a + 40}$$

$$\Rightarrow \frac{800}{a} - \frac{800}{a + 40} = \frac{2}{3}$$

$$\Rightarrow \frac{32000}{a(a + 40)} = \frac{2}{3}$$

$$\Rightarrow a(a + 40) = 48000$$

$$\Rightarrow a = 200 \text{ Km/hr}$$

Hence option A is correct.

**6.** Speed of the train =  $6x$  m/s, speed of the man =  $x$  m/s

length of the train = 650m, time taken to cross a pole = 1 minute 5 seconds = 65 seconds

$$S = \frac{D}{T}$$

$$6x = \frac{650}{65}$$

$$x = \frac{10}{6} = \frac{5}{3}$$

$$\text{Speed of the man} = \frac{5}{3} \text{ m/s}$$

$$\text{Man can cross the 240m platform in } \frac{240}{5/3}$$

$$= 144 \text{ seconds} = 2 \text{ minutes } 24 \text{ seconds}$$

Hence, option D is correct.

7. Let the speed of one train be 'a' m/sec and that of another train be 'b' m/sec.

If the trains are moving in opposite direction then they will cover the distance equal to sum of their lengths in crossing each other and relatively their speed will add up.

While in crossing a platform the train will cover the distance equal to sum of length of train and platform length.

Then we have the following equations:

$$9 = \frac{160 + 160}{a + b} \Rightarrow a + b = \frac{320}{9} \dots\dots\dots 1$$

$$\text{And } 27 = \frac{160 + 200}{a} \Rightarrow a = \frac{360}{27} \dots\dots\dots 2$$

Substituting .....2 in .....1 we get

$$b = \frac{600}{27}$$

$$\Rightarrow \text{required ratio} = \frac{\frac{360}{27}}{\frac{600}{27}} = 3 : 5$$

Hence, option C is correct.

8. Let the speed of train be x km/hr

$$\frac{36}{x + 4} + 6 \text{ mins} = \frac{36}{x}$$

$$\Rightarrow \frac{36}{x} - \frac{36}{x + 4} = \frac{6}{60}$$

$$\Rightarrow 36 \left( \frac{1}{x} - \frac{1}{x + 4} \right) = \frac{6}{60}$$

$$\Rightarrow 36 \left( \frac{x + 4 - x}{x^2 + 4x} \right) = \frac{1}{10}$$

$$\Rightarrow 360 \times 4 = x^2 + 4x$$

$$\Rightarrow x^2 + 4x - 1440 = 0$$

$$\Rightarrow x^2 + 40x - 36x - 1440 = 0$$

$$\Rightarrow x(x + 40) - 36(x + 40) = 0$$

$$\Rightarrow (x + 40)(x - 36) = 0$$

$$\Rightarrow x = 36 \text{ km/hr}$$

Hence, option B is correct.



**9.** From the given equation :

Length of the train = 200 m

Length of the tunnel = 250 m

Total length = 200 + 250 = 450 m = total distance

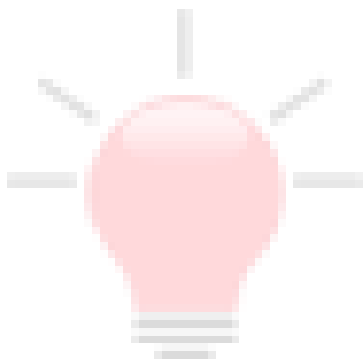
And time taken to cross the tunnel = 125 sec

$$\text{Speed} = \left( \frac{200 + 250}{125} \right) \text{ m/sec} = \left( \frac{450}{125} \times \frac{18}{5} \right) = 125 \text{ km/hr}$$

Hence, option C is correct.

**10.** As the length of the platform is not given, we can't find the length of the train.

Hence, option A is correct.



**SmartKeeda**  
The Question Bank



**SmartKeeda**  
The Question Bank

प्रस्तुत करते हैं

# TestZone

भारत की सबसे किरफायती टेस्ट सीरीज़

अभी  
जुड़ें

## 12 Month Plan

2017-18 All Test Series

@ Just

₹ 399/-

300+ फुल लेन्थ टेस्ट

- श्रेष्ठ विश्लेषण
- उत्कृष्ट विषय सामग्री
- बेजोड़ व्याख्या

अभी जुड़ें