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

Time and Distance Questions for Bank Clerk Pre Exams – Time and distance Quiz at Smartkeeda.

Time and distance Quiz 1

Directions: Study the following Questions carefully and choose the right answer:

1. The speeds of the Shaan and Rohan are 50 km/h and 30 km/h respectively. Initially Shaan is at a place N and Rohan is at a place M. The distance between M and N is 710 km. Shaan started his journey 3 hours earlier than Rohan to meet each other. If they meet each other at a place R somewhere between M and N. then the distance between R and N is

A. 210 km	B. 500 km	C. 430 km
D. 620 km	E. None of these	

2. The distance between two places A and B is 370 km. the 1st car departs from place A to B, at a speed of 80 kmph at 10 am and 2nd car departs from place B to A at a speed of 50 kmph at 1 pm. At what time both cars meet each other?

A. 2 : 30 pm	B. 2 : 00 pm	C. 2 : 10 pm
D. 2 : 20 pm	E. None of these	

3. A man takes 5 hours 45 minutes to walk to a certain place and ride back. He would have saved 2 hours had he ridden both ways. The time he would take to walk both ways is

A. 3 hours 45 minutes	B. 7 hours 30 minutes	C. 7 hours 45 minutes
D. 11 hours 45 minutes	E. None of these	

4. A and B start at the same time with speeds of 40 km/hr and 50 km/hr respectively. If in covering the journey A takes 15 minutes longer than B, the total distance of the journey is

A. 46 km	B. 48 km	C. 50 km
D. 52 km	E. None of these	

5. A motor starts with the speed of 70 kmph with its speed increasing every two hours by 10 kmph. In how many hours will it cover 345 kms?

A. $2\frac{1}{4}$ hours	B. $4\frac{1}{2}$ hours	C. C. 4 hours 5 minutes
D. Can't be determined	E. None of these	

6. A man starts walking. He walked 2 km in the first hour. Then he walked two-thirds of the distance of the previous hour is each next hour. If he walked continuously then how long could he walk maximum?

A. 60 km	B. 6 km	C. 12 km
D. 8 km	E. None of these	

7. Two SUV cars start at the same time from Patna and Gaya, which are 110 km apart. If the two cars travel towards each other, they meet after one hour and if they travel in the same direction, the car from Patna overtakes the car from Gaya after 11 hours. What is the speed of the car starting from Gaya?

A. 60 kmph   B. 40 kmph   C. 50 kmph
D. 30 kmph   E. 55 kmph

8. A man takes 5 hours 40 minutes in walking to a certain place and riding back. He would have taken 3 hours less by riding both ways. What would be the time he would take to walk both ways ?

A. 4 hours 35 minutes   B. 8 hours 35 minutes   C. 10 hours
D. 8 hours 40 minutes   E. None of these

9. Prem and Shyam decide to go on a trip to Point Y on a particular day from Point X. Prem leaves for Point Y at 11:00 am at a speed of 72 km/hr. Shyam leaves for Point Y at 11 : 30 the same day as Prem left. At what speed should Shyam travel to catch up with Prem in 4 hours? (in km/hr)

A. 85   B. 80   C. 81
D. 82   E. None of these

10. A car starts running at the speed of 56 km per hour. If the speed of the car increase 6 km at the end of every hour then what will be distance covered at the end of ten hours from the start of the journey?
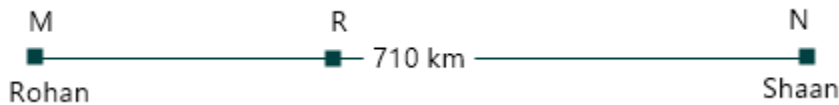
A. 790 km   B. 830 km   C. 835 km
D. Can't be determined   E. None of these

Correct Answers:

1	2	3	4	5	6	7	8	9	10
B	B	C	C	B	B	C	D	C	B

Explanations:

1.

M   R   N
■————————————■— 710 km ——————————————■
Rohan   Shaan

Distance covered by Shaan in 3 hours = 3 × 50 = 150 km

∴   Remaining distance = 710 – 150 = 560 km Relative speed = 50 + 30 = 80 kmph
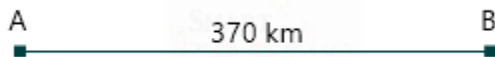
∴ They meet after = $\dfrac{560}{80}$ = 7 hours

Now, Shaan covers the total distance in (7 + 3)= 10 hours

∴ Distance covered by Shaan in 10 hours = 50 × 10 = 500 km
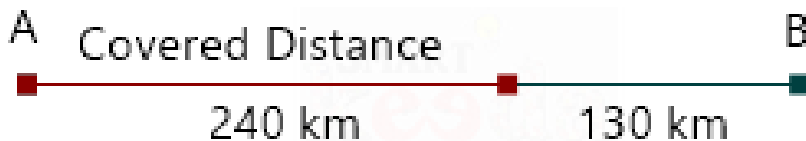
∴ Distance between R and N = 500 km.

Hence, option B is correct.

2. Total distance = 370 km

A   370 km   B
■——————————————————————————■

Now, the distance covered by first car in (10 am to 1 pm =) 3 hours = 80 × 3 = 240 km

Remaining distance = 370 – 240 = 130 km

A   Covered Distance   B
■——————————————■————————————■
      240 km   130 km

Relative speed = 80 + 50 = 130 kmph

Now, they cover 130 km in $(\dfrac{130}{130}=)\dfrac{1}{1}$ hours = 60 mins

So, they meet 60 mins after 1 pm. So, reqd answer = 2 : 00 pm.

Hence, option B is correct.

3. 1 Bike + 1 Walk = 5 hrs 45 mins

2 Bike = 3 hrs 45 mins

Hence 1 way Bike journey takes 1 hrs 52.5 mins

So, 1 way walk should take (5 hr 45 mins) − (1 hrs 52.5 mins) = 3 hr 52.5 mins

2-way walk would take: 3 hr 52.5 mins 2 = 7 hr 45 mins

Hence, option C is correct.

4. Let x be the total distance of the journey.

Time taken by A − Time taken by B

$$= 15 \text{ minutes} = \frac{1}{4} \text{ hours}$$

$$\frac{x}{40} - \frac{x}{50} = \frac{1}{4} \Rightarrow \frac{x}{200} = \frac{1}{4}$$

∴ x = 50 km.

Hence, option C is correct.

5. Distance covered in first two hours = 70 × 2 = 140 km

Distance covered in next two hours = 80 × 2 = 160 km

Distance covered in first four hours = 140 + 160 = 300 km

Remaining distance = 345 − 300 = 45 km

Now, this distance will be covered at the rate of 90 km/hr.

∴ time taken $= \frac{45}{90} = \frac{1}{2}$ hour

Total time $= 4 + \frac{1}{2} = 4\frac{1}{2}$ hours

Hence, option B is correct.

6. Reqd. distance

$$= [2 + \frac{2 \times 2}{3} + (\frac{2 \times 2}{3})^2 + (\frac{2 \times 2}{3})^3 + ... \infty]$$

If S_∞ represents the sum of the ∞ terms of a geometric series

So, $S_\infty = a + ar + ar^2 + ar^3 + ar^4 + ... + \infty$

The sum to infinity is given by

$S_\infty = \frac{a}{1 - r}$ only if $-1 < r < 1$

Here a = 2 and common ratio r = 2/3. On putting the values, we get

$$= 2 \times \frac{1}{1 - \frac{2}{3}} = 2 \times 3 = 6 \text{ km}$$

Hence, option B is correct.

7. Let the speed of the car from Patna be x and the speed of the car from Gaya be y.

Then, $\dfrac{110}{x+y} = 1$

So, $x + y = 110$ ....(i)

And, $\dfrac{110}{x-y} = 11$

∴ $x - y = 10$ ....(ii)

From equation (i) and (ii), we get

x = 60 kmph, y = 50 kmph

So, the speed of car from Gaya = 50 kmph

Hence, option C is correct.

8. 1 Bike + 1 Walk = 5 hours 40 minutes

2 Bike = 5 hours 40 minutes – 3 hours = 2 hours 40 minutes

Hence, 1 way Bike journey takes time = 2 hours 40 minutes ÷ 2 = 1 hour 20 minutes

So, 1 way walk should take (5 hours 40 minutes) – (1 hour 20 minutes) = 4 hours 20 minutes

2 way walk would take time = 4 hours 20 minutes × 2 = 8 hours 40 minutes

Hence, option D is correct.

9. During the period 11:00 am to 11:30 am,

Distance covered by Prem = $72 \times \dfrac{1}{2} = 36$ km

(∵ Speed of Prem is 72 kmph)

Then in 4 hours Shyam requires to increase the speed to catchup Prem by

= $\dfrac{36}{4}$ = 9 kmph

∴   Shyam's speed = 72 + 9 = 81 kmph.

Hence, option C is correct.

10.   As the distances are in Arithmetic Progression

∵ Sum of n terms in A.P. = $\dfrac{n}{2}\{2a + (n - 1)d\}$

∴ Total Distance = $\dfrac{n}{2}\{2a + (n - 1)d\}$

Given, n = 10, a = 56, d = 6

= $\dfrac{10}{2}\{2 \times 56 + (10 - 1)6\}$

= 5(112 + 54) = 830 km

Hence, option B is correct.