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Date Interpretation Info Chart Questions Quiz for SBI PO Pre, IBPS PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams.

DI Info Chart Quiz 12

Directions: Study the given information carefully to answer the questions.

In an amusement park, the following types of traffic signals are there to drive a toy car.

Red Light (R) = Stop

Yellow light (Y) = Wait

Red and Yellow lights (RY) = Turn left

Red and Green lights (RG) = Turn right

Yellow and Green lights (YG) = Go at 20 km per hour

Red, Yellow, and Green lights (RYG) = Go at 10 km per hour

Green light (G) = Go at 5 km per hour

All children driving the cars inside the amusement park should compulsorily follow the traffic signals and can't go outside the park to drive the car. A girl Ankita who is facing north, drive the car at the speed of 30 km per hour inside the park and encounters the signals in the following manners. (She can go to the next signal only after passing the previous signal)

Starting Point = S

After half an hour, 1st signal – RY and YG

After 15 minutes, 2nd signal – RYG

After 30 minutes, 3rd signal – RG and RYG

After 15 minutes, 4th signal – RG and YG

After an hour, 5th signal – RY and G

After 2 hours, 6th signal – R

1. What is the total distance that Ankita travelled from the starting point till the 6th signal?

- A. 55 km B. 52.5 km C. 57.5 km D. 62.5 km E. None of these

2. What is the average speed at which Ankita travelled from the starting point till the 6th signal?

- A. $12\frac{7}{9}$ km per hour B. $11\frac{7}{9}$ km per hour C. $12\frac{5}{9}$ km per hour D. $11\frac{5}{9}$ km per hour E. None of these

3. Suppose, in park there is no signals then how much less time Ankita would have taken to reach the final position?

- A. 3 hours 12 minutes B. 3 hours 32 minutes C. 2 hours 12 minutes D. 3 hours 58 minutes
E. 4 hours 5 minutes

4. If at the starting point, Ankita was facing toward south then what would be the final position from the starting point?

- A. 27.5 km towards south and 10 km towards east B. 17.5 km towards south and 12.5 km towards east
C. 27.5 km towards north and 10 km towards east D. 27.5 km towards south and 10 km towards west
E. 17.5 km towards north and 10 km towards east

5. After the starting point, if the first signal was RG and RYG instead of RY and YG then what would be the final position of Ankita from the starting point?

- A. 17.5 km towards west and 10 km towards north B. 12.5 km towards west and 2.5 km towards north
C. 12.5 km towards west and 10 km towards north D. 12.5 km towards east and 2.5 km towards south
E. 17.5 km towards east and 10 km towards south

6. After the starting point, if the first signal was RG and RYG instead of RY and YG then what would have been the shortest distance from the starting point to the ending point?

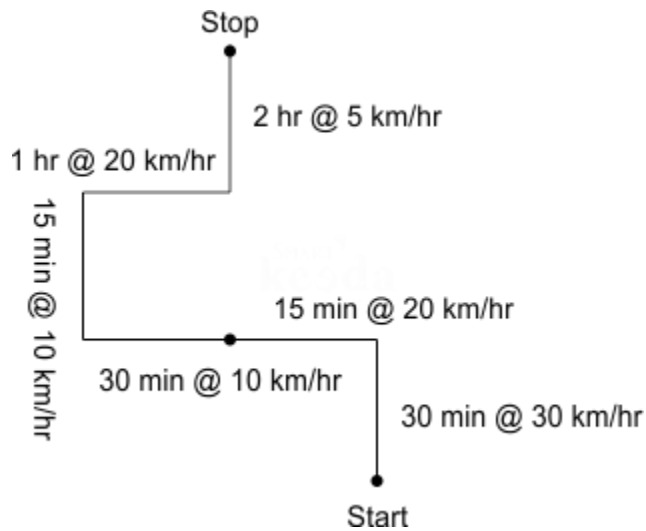
- A. 12.25 km B. 14.92 km C. 12.75 km D. 13.22 km E. 14.72 km

Correct Answers:

1	2	3	4	5	6
C	A	B	D	B	C

Answers :-

1.



15 KM + 5 KM + 5 KM + 2.5 KM + 20 KM + 10 KM = 57.5 km
Hence, option C is correct.

2.

Total distance = 57.5 km

Total time = 30 min + 15 min + 30 min + 15 min + 1 hour + 2 hours = 4.5 hour

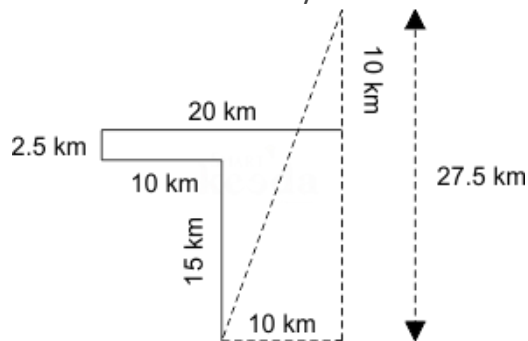
$$\text{Average speed} = \frac{\text{Distance}}{\text{Time}} = \frac{57.5}{4.5}$$

$$= \frac{115}{9} \text{ km/hr} = 12 \frac{7}{9} \text{ km per hour}$$

Hence, option A is correct.

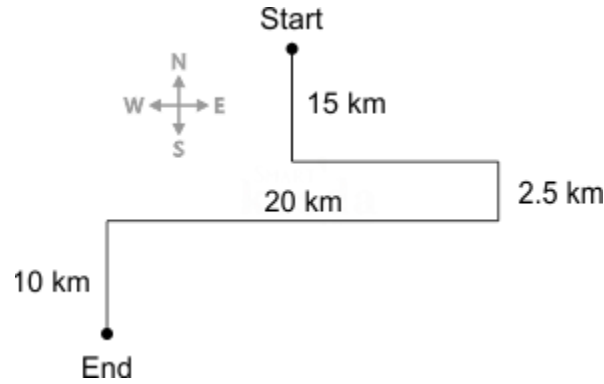
3.

The total time taken by the Ankita = 4.5 hrs



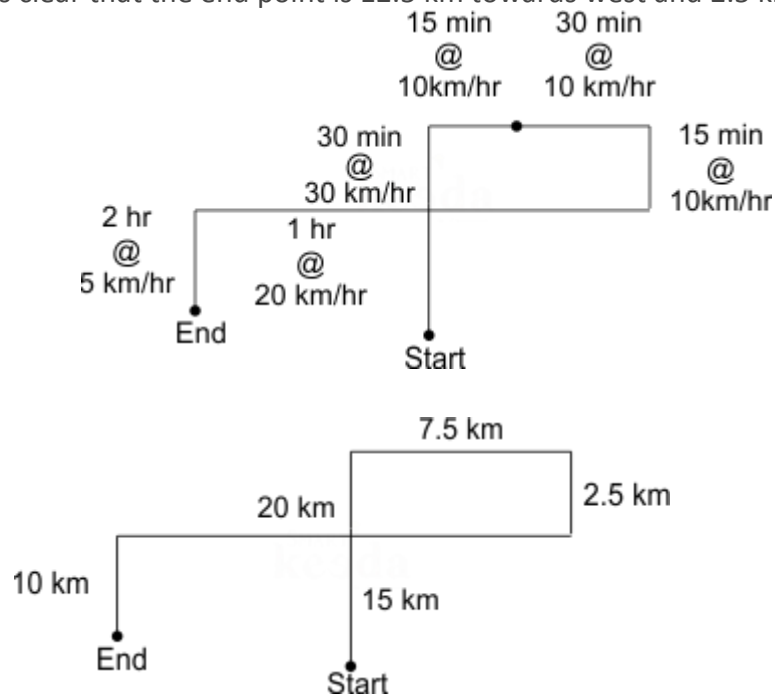
And the shortest distance would have been $\sqrt{(27.5^2 + 10^2)} = \sqrt{(756.25 + 100)} =$ approximately 29.26 km
= approximately 29 km @ 30 km per hour = approximately 58 min
The required difference = 4.5 hours – 58 minutes = 3 hours 32 minutes
Hence, option B is correct.

4. 27.5 km towards south and 10 km towards west



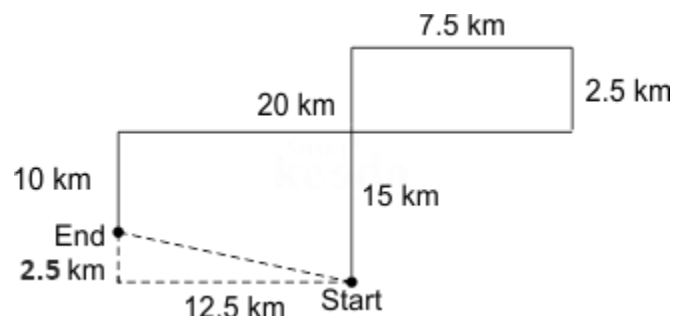
Hence, option D is correct.

5. From the diagram, it is clear that the end point is 12.5 km towards west and 2.5 km towards north



Hence, option B is correct.

- 6.



The shortest distance = $\sqrt{(12.5^2 + 2.5^2)} = \sqrt{(156.25 + 6.25)} = \sqrt{162.5} =$ approximately 12.75 km

Hence, option C is correct.



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