

Q) TIME & DISTANCE :- <1>

1. The distance between two cities P and Q is 300 km. A train starts from station P at 10 am with speed 80 km/hr towards Q. Another train from Q towards P with speed 40 km/hr at 11 am. At what time do they meet.

- (a) 12:20 Pm (b) 12:40 Pm (c) 12:50 Pm (d) 1 Pm

2. A car covers first 10 km with 40 km/hr; next 10 km with 60 km and next 10 km in 20 km/hr. What is the average speed of the car. (in km/hr)

- (a) 320/11 (b) 330/11 (c) 350/11 (d) 360/11

3. A train running with 72 km/hr takes 20 sec to cross a platform 200 m long. How much it takes to cross a stationary train having same length.

- (a) 20 sec (b) 30 sec (c) 40 sec (d) 50 sec

4. Two cities A and B are at a distance of 60 km from each other. Two persons P and Q start from first city at a speed of 10 km/h and 5 km/h respectively. P reached the second city B and returns back and meets Q at Y. Find the distance between A and Y.

- (a) 30 km (b) 40 km (c) 50 km (d) 55 km

(1) TIME & DISTANCE :- (2)

5. A man covers $\frac{2}{3}$ rd distance at a speed of 30 km/h. If the total distance he covers is 300 km. Find the average speed of the man.
(a) 36 km/h (b) 38 km/h (c) 40 km/h (d) 42 km/h
6. When Priya travels from home to office with a speed of 40 km/hr; she reaches her office late by 20 minutes and when she travels with 60 km/h, she reaches 10 minutes early. Find the distance between her office and home.
(a) 50 km (b) 60 km (c) 65 km (d) 70 km
7. A bus running at $\frac{3}{5}$ th of his usual speed reaches its destination in 15 hr. If the bus runs at his usual speed; how much time would be saved.
(a) 6 hr (b) 7 hr (c) 8 hr (d) 10 hr.
8. Excluding stoppages the speed of bus is 60 km/hr and including stoppages its average speed becomes 48 km/hr. For how much time the bus stops per hour.
(a) 10 min (b) 12 min (c) 14 min (d) 16 min
9. Rahul takes 4 hr in walking at certain place and return back. While it takes 3 hr in walking at certain place and riding back. Find the time Rahul will take to ride both sides.
(a) 2 hr (b) 3 hr (c) 3.5 hr (d) 4.5 hr.

(Q) :- TIME & DISTANCE :- <3>

10. P walks with a speed of 6 km/hr and after 5 hr of his start; Q starts running towards P at a speed of 8 km/hr . At what distance from start will Q catch P. (in km).

- (a) 100 (b) 110 (c) 120 (d) 140

11. Two trains A and B start from two places P and Q towards Q and P respectively. After passing each other they take $1 \text{ hour } 48 \text{ minutes}$ and $3 \text{ hours } 20 \text{ min}$ to reach Q and P respectively. If the train from P is moving at 45 km/hr then find the speed of other train.

- (a) 69 km/h (b) 74 km/hr (c) 54 km/h (d) 64 km/h

12. The speeds of the two trains are in the ratio $3:4$. They are moving in opposite tracks.

→ Then time taken by both the trains to cross a telegraph line are 5 and 10 seconds respectively.

Find the time taken by the trains to cross each other completely.

- (a) $4\frac{5}{7} \text{ sec}$ (b) $6\frac{4}{7} \text{ sec}$ (c) $1\frac{3}{7} \text{ sec}$ (d) $7\frac{6}{7} \text{ sec}$

13. A train travels a certain distance by taking 3 stops of 20 min each. Considering the period of stoppage; the overall speed of the train comes to 40 km/hr . While without consideration of stoppage; it is 45 km/hr . How much distance must the train have travelled?

- (a) 400 km (b) 550 km (c) 360 km (d) 200 km

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14. Two trains of length 115 m and 110 m respectively run on parallel rails. When running in the same direction the faster train passes the slower one in 25 seconds; but when they are running in opposite directions with the same speeds as earlier, they pass each other in 5 seconds. Find the speed of each train? (in m/s).

- (a) 27, 18 (b) 22, 15 (c) 16, 30 (d) 24, 18

15. A train covers a distance of 3584 km in 2 days 8 hours. If it covers 1440 km on the first day and 1608 km on the second day. By how much does the average speed of the train for the remaining part of the journey differ from that of the entire journey.

- (a) 3 km/hr less (b) 4 km/hr less (c) 3 km/hr more
(d) 4 km/hr less

16. A train travelling with a speed of 60 km/hr catches another train travelling in the same direction and then leaves it 120 m behind in 18 seconds. The speed of the second train is:

- (a) 26 km/h (b) 35 km/h (c) 36 km/h (d) 63 km/h

(9) :- TIME & DISTANCE :- (5)

17. Two stations P and Q are 110 km apart on a straight track. One train starts from P at 7 am and travels towards Q at 20 km/hr. Another train starts from Q at 8 am and travels towards P at a speed of 25 km/hr. At what time will they meet?

- (a) 11 am (b) 9 am (c) 10 am (d) 9:10 am

18. An express train travelled at an average speed of 100 km/hr; stopping for 3 minutes after every 75 km. How long did it take to reach its destination 600 km from the starting point?

- (a) 5 hr 30 min (b) 6 hr 23 min (c) 6 hr 21 min (d) 5 hr 46 min

19. A train covers a distance in 50 minutes; if it runs at a speed of 48 km/hr on an average. The speed at which the train must run to reduce the time of journey to 40 minutes will be

- (a) 50 km/h (b) 60 km/h (c) 65 km/hr (d) 70 km/hr

20. Two friends starting from the same place walk at the rate of 5 km/hr and 5.5 km/hr respectively. What time will they take to be 8.5 km apart; if they walk in the same direction?

- (a) 15 hr (b) 18 hr (c) 17 hr (d) 16 hr

(6) :- TIME & DISTANCE :- <6>

21. A boat can travel 4.2 km upstream in 14 min. If the ratio of the speed of the boat in still water to the speed of the stream is 7:1. How much time will the boat take to cover 17.6 km downstream.
(a) 56 min (b) 44 min (c) 32 min (d) 48 min
22. A man can row at 4 km/hr in still water. If the velocity of the current is 1 km/hr and it takes him 1 hour to row to a place and come back; how far is that place.
(a) 1.8 km (b) 2.6 km (c) 1.5 km (d) 3.2 km
23. Arun takes thrice as long to row a distance against the stream as to row the same distance in favour of the stream. The ratio of the speed of the boat in still water and stream is:
(a) 3:1 (b) 1:2 (c) 2:1 (d) 2:3
24. A boat takes 120 min less to travel 30 km downstream than to travel the same distance upstream. If the speed of the boat in still water is 8 km/hr then the speed of the stream is:
(a) 2 km/h (b) 8 km/h (c) 3 km/h (d) 4 km/h
25. A boat running downstream covers a distance of 24 km in 4 hrs; while for covering the same distance upstream it takes 6 hrs. What is the speed of the boat in still water?
(a) 12 km/hr (b) 10 km/h (c) 5 km/h (d) 7 km/h