Time, Speed & Distance

1. **A man walking at the rate of 5 Km/hr. crosses a bridge in 15 Minutes. The length of the bridge(in metres) is :**
   (1) 600. (2) 750
   (3) 1000 (4) 1250

2. **A man crosses a road 250 metres wide in 75 seconds. His speed in km/hr is :**

(1) 10
(2) 12
(3) 12.5
(4) 15

3. **A car goes 10 metres in a second. Find its speed in km/hour.**

(1) 40
(2) 32
(3) 48
(4) 36

4. **A train is travelling at the rate of 45km/hr. How many seconds it will take to cover a distance of (4/5) Km ?**

(1) 36 sec. (2) 64 sec.
(3) 90 sec. (4) 120 sec.

5. **An aeroplane covers a certain Distance at a speed of 240 km Hour in 5 hours. To cover the Same distance in 1 (2/3) Hours, it must travel at a speed of :**

(1) 300 km./hr. (2) 360 km./hr.

(3) 600 km./hr. (4) 720 km./hr.

6. **A boy runs 20 km in 2.5 hours. How long will he take to run 32 Km at double the previous Speed ?**

(1) 2 hours (2) 2 (1/2) Hours

(3) 4 (1/2) Hours (4) 5 hours

7. **A man riding his bicycle covers 150 metres in 25 seconds. What is his speed in km per hour ?**

(1) 25
(2) 21.6
(3) 23
(4) 20

8. **A and B travel the same distance at speed of 9 km/hr and 10 km/hr respectively. If A takes 36 minutes more than B, the distance travelled by each is**

(1) 48 km (2) 54 km

(3) 60 km (4) 66 km

9. **A person started his journey in the morning. At 11 a.m. he covered 3/8 of the journey and on the same day at 4.30 p.m. he covered 5/6 of the journey. He started his journey at**

(1) 6.00 a.m. (2) 3.30 a.m.

(3) 7.00 a.m. (4) 6.30 a.m

10. **Two men start together to walk a certain distance, one at 4 km/h and another at 3 km/h. The former arrives half an hour before the latter. Find the distance.**

(1) 8 km
(2) 7 km
(3) 6 km
(4) 9 km

11. A bullock cart has to cover a distance of 120 km. in 15 hours. If It covers half of the journey in (3/5)th time, the speed to cover the remaining distance in the time left has to be

(1) 6.4 km/hr (2) 6.67 km/hr

(3) 10 km/hr (4) 15 km/hr

12. Walking at three-fourth of his usual speed, a man covers a certain distance in 2 hours more than the time he takes to cover the distance at his usual speed. The time taken by him to cover the distance with his usual speed is

(1) 4.5 hours (2) 5.5 hours

(3) 6 hours (4) 5 hours

13. By walking at ¾ of his usual speed, a man reaches his office 20 minutes later than his usual time. The usual time taken by him to reach his office is

(1) 75 minutes (2) 60 minutes

(3) 40 minutes (4) 30 minutes

14. A man covers half of his journey at 6km/hr and the remaining half at 3km/hr. His average speed is

(1) 9 km/hr (2) 4.5 km/hr
(3) 4 km/hr (4) 3 km/hr

15. A man travels a distance of 24 Km at 6 kmph. Another distance ff 24 km at 8 kmph and a third distance of 24 km at 12 kmph. His average speed for the whole journey (in kmph) is

(1) 8 2/3
(2) 8
(3) 2 10/13
(4) 9

16. A man walks from his house at an average speed of 5 km per hour and reaches his office 6 minutes late. If he walks at an average speed of 6 km/h he reaches 2 minutes early. The distance of the office from his House is

(1) 6 km
(2) 9 km
(3) 12 km
(4) 4 km

17. A man goes to a place on bicycle at speed of 16 km/hr and comes back at lower speed. If the average speed is 6.4 km/hr in total journey, then the return speed (in km/hr) is :

(1) 10
(2) 8
(3) 6
(4) 4

18. In covering a certain distance, the speed of A and B are in the ratio of 3 : 4. A takes 30 minutes more than B to reach the destination. The time taken by A to reach the destination is :

(1) 1 hour (2) 1 (1/2) Hours

(3) 2 hours (4) 2 (1/2) Hours

19. A thief is noticed by a policeman from a distance of 200m. The thief starts running and the policeman chases him. The thief and the policeman run at the rate of 10 km./hr and 11 km./hr respectively. What is the distance between them after 6 minutes ?

(1) 100 m (2) 190 m

(3) 200 m (4) 150 m

20. A runs twice as fast as B and B runs thrice as fast as C. The distance covered by C in 72 minutes, will be covered by A in :

(1) 18 minutes (2) 24 minutes

(3) 16 minutes (4) 12 minutes

21. In covering a distance of 30 km, Abhay takes 2 hours more than Sameer. If Abhay doubles his speed, then he would take 1 hour less than Sameer. Abhay's speed is:

(1) 5 kmph

(2) 6 kmph

(3) 6.25 kmph

(4) 7.5 kmph

22. A policeman sighted a robber from a distance of 300 m. The robber also noticed the policeman and started running at 8 km/hr. The policeman also started running after him at the speed of 10 km/hr. Find the distance that the robber would run before being Caught.

BOATS AND STREAMS

1. The speed of a boat in still water is 15 kmph and its upstream speed is 7 kmph. Find the downstream speed.

1) 23 kmph 2) 25 kmph 3) 35 kmph 4) 13 kmph 5) 21 kmph

2. The speed of a boat in still water is 15 kmph and the rate of current is 13 kmph. Find the distance travelled down stream in 15 minutes.

1) 7 km 2) 8 km 3) 14 km 4) 28 km 5) 21 km

3. The respective ratio of the speed of a boat upstream and its speed downstream is 2 : 3. The speed of the boat in still water is 14 kmph, how much distance the boat can travel upstream in 24 minutes ? (in km)

1) 3.36 2) 4.48 3) 5.24 4) 5.12 5) 4.32

4. The respective ratio between speed of the boat in still water and speed of the stream is 8 : 1. If it covers 67.5km downstream in 2hrs 30mins, what is the speed of the boat upstream ? (in km/h)

1) 28 2) 24.5 3) 21 4) 17.5 5) 14

5. In a stream running at 2 km/h, a motorboat goes 10 km upstream and back again to the starting point in 55 min. Find the speed of the motor boat in still water

1) 21 km/h 2) 18 km/h 3) 15 km/h 4) 22 km/h 5) 20 km/h

6. A motor-boat can travel at 10 km/hour in still water. It travelled 91 km downstream in a river and then returned to the same place, taking altogether 20 hours. Find the rate of flow of river.

1) 3 kmph 2) 4 kmph 3) 2 kmph 4) 5 kmph 5) 6 kmph

7. When the speed of a boat in still water is 7 km/hr and the rate of stream is 2 km/hr, find upstream speed of the boat?

1) 6 km/hr 2) 9 km/hr 3) 5 km/hr 4) 4 km/hr 5) 2 km/hr

8. Ravi can row downstream at 11 km/hr and upstream at 7 km/hr. Find the speed of Ravi in still water and speed of current?

1) 9 km/hr and 1 km/hr 2) 8 km/hr and 3 km/hr 3) 7 km/hr and 2 km/hr 4) 9 km/hr and 2 km/hr 5) 6 km/hr and 1 km/hr

9. Suraj can row 60 km downstream and 36 km upstream, taking 10h each time. What is the velocity of the current?

1) 2.2 km/hr 2) 1.2 km/hr 3) 3 km/hr 4) 3.2 km/hr 5) 1.3 km/hr

10. If the speed of a swimmer in still water is 13 km/hr. Find the downstream speed of the swimmer, when the river is flowing with the speed of 4 km/hr.

1) 17 km/hr 2) 9 km/hr 3) 20 km/hr 4) 7 km/hr 5) 19 km/hr

11. What time will be taken by a boat to cover a distance of 192 km along the stream. If speed of boat in still water is 24 km/hr and speed of stream is 8 km/hr ?

BOATS AND STREAMS

1) 4h 2) 6h 3) 8h 4) 7h 5) 3h

12. A man can row against the current three - fourth of a kilometre in 15 min and returns same distance in 10 min, then ratio of his speed to that of current is

1) 1:5 2) 4:1 3) 5:1 4) 1:4 5) 2:5

13. A boat goes 52 km downstream in 20 h. It takes 6h more to cover the same distance against the stream. What is the speed of the boat in still water?

1) 2.3 km/hr 2) 3.2 km/hr 3) 3.6 km/hr 4) 6.4 km/hr 5) 1.3 km/hr

14. Tiru can row a certain distance downstream is 24h and can come back covering the same distance in 36 h. If the stream flows at the rate of 12 km/hr, find the speed of Tiru in still water.

1) 15 km/hr 2) 60 km/hr 3) 35 km/hr 4) 25 km/hr 5) 55 km/hr

15. A man can row at 10 km/hr in still water. If he takes total 5h to go to a place 24 km away and and return, then the speed of the water current is (approximately)?

1) 3 km/hr 2) 1 km/hr 3) 2 km/hr 4) 1 2 km/hr 5) 5 km/hr

16. A boat can go 48km upstream and 36km downstream in 5.8 hrs. The speed of the boat in still water is 16km/h. How much time (in hrs) will the boat take to go 54km upstream and 40km downstream? (TCS NQT)
1). 6.8 2) 6.5 3) 7.2 4) 7.5

17.A boat travels 12 km downstream and 6 km upstream in 3 hours. The same boat takes fifty percent extra time to cover 10 km downstream and 16 upstream. If the same boat travels 20 km downstream and z km upstream in 4 hours, find z.(TCS NQT)

1) 8 km 2) 4.5 km 3) 7.5 km 4) 9 km

18. Ratio of speed of a boat in still water to speed of stream is 14:3 respectively. If a boat can travel a distance of 99 km upstream and 119 km downstream together in 8 hours then find the total time taken by the boat to cover 84 km in still water and 51 km in downstream.

1) 3.5 Hours 2) 5.5 Hours 3) 4.5 Hours 4) 2..5 Hours

19.The downstream speed of a boat is 5 km/hr more than its upstream speed and the ratio of the speed of the boat in still water to the speed of the stream is 19: 5. Find the total time taken by boat to travel 42 km downstream and 31.5 km upstream?

1) 7 ½ hr 2) 8 hr 3) 9 hr 4) 9 ½ hr 5) 10 hr

20.Time taken by a boat to cover 162 km each in downstream and in upstream is 14 hours and 24 minutes. If speed of stream is 6 km/hr., then find the time taken by boat to cover 240 km in upstream.

1) 7 1/3 hours 2) 18 2/3 hours 3) 9 1/3 hours 4) 16 2/3 hours 5) 13 1/3 hours

PROBLEMS ON TRAINS

1.A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?
(1).120 metres (2).180 metres (3).324 metres (4).150 metres

2. The length of the bridge, which a train 130 metres long and travelling at 45 km/hr can cross in 30 seconds, is:

(1).200 m (2).225 m (3).245 m (4).250 m

3.A train 360 m long is running at a speed of 45 km/hr. In what time will it pass a bridge 140 m long?
(1).40 sec (2).42 sec (3).45 sec (4).48 sec

4. A train passes a station platform in 36 seconds and a man standing on the platform in 20 seconds. If the speed of the train is 54 km/hr, what is the length of the platform?

(1).120 m (2).240 m (3).300 m (4).None of these

5.A train 240 m long passes a pole in 24 seconds. How long will it take to pass a platform 650 m long?
(1) 65 sec (2) 89 sec (3) 100 sec (4) 150 sec

6. A train 125 m long passes a man, running at 5 km/hr in the same direction in which the train is going, in 10 seconds. The speed of the train is:

(1).45 km/hr (2).50 km/hr (3).54 km/hr (4).55 km/hr

7.Two trains of equal length are running on parallel lines in the same direction at 46 km/hr and 36 km/hr. The faster train passes the slower train in 36 seconds. The length of each train is:

(1).50 m (2).72 m (3).80 m (4).82 m

8.Two trains are moving in opposite directions @ 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is:
(1).36 (2).45 (3).48 (4).49

9. A 270 metres long train running at the speed of 120 kmph crosses another train running in opposite direction at the speed of 80 kmph in 9 seconds. What is the length of the other train?

(1).230 m (2).240 m (3).260 m (4).320 m

10. Two trains, each 100 m long, moving in opposite directions, cross each other in 8 seconds. If one is moving twice as fast the other, then the speed of the faster train is:

(1)30 km/hr (2)45 km/hr (3)60 km/hr (4)75 km/hr

11. Two persons were approaching each other at 12 km/hr and 24 km/hr respectively. A train moving in the same direction as the faster man took 25 seconds to cross him and 15 seconds to cross the other one. Find the speed of the train (in km/hr).(TCS NQT)

(1). 60 (2). 45 (3). 78 (4). 66

PROBLEMS ON TRAINS

12. The lengths of trains X and Y are 240m and 300m respectively. X and Y pass a static pole in 6 and 12 seconds respectively. In what time (in seconds) will they cross each other, if they move in the same direction? (TCS NQT)

(1). 36 (2). 24 (3). 18 (4). 30

13. Ratio between length of trains A and B is 3 : 5. Speed of train A is 72 km/h and that of train B is 54 km/h & they are running opposite to each other. If train A crosses train B in 16 seconds, then find length of train B.

(1) 350 m (2) 250 m (3) 450 m (4) 150 m (5) 320 m

14. Two trains of length 140m & 120m are running in same direction on parallel tracks with speeds 132 kmph & 80 kmph respectively. How much time will they take to cross each other?

(1) 7.09 sec (2) 18 sec (3) 11.7 sec (4) 4.42 sec (5) Cannot be determined

15. Train A running at a speed of 36 km/hr crosses train B in 20 seconds. Find the speed of train B (in km/hr), if the sum of the length of train A & B is 600 meters and both trains running in the opposite direction.

(1) 72 km/hr (2) 54 km/hr (3) 48 km/hr (4) 108 km/hr (5) 81 km/hr

16. Train A can cross a man in 8 sec and a 180 m long platform 'P' in 17 sec. If train A cross train B which is running in opposite direction at speed of 108 km/hr in 8 sec, then find time taken by train B to cross platform P?

(1) 16 sec (2) 11 sec (3) 14 sec (4) 12 sec (5) 15 sec

17. Length of train A is 400 meters and length of train B is 'x' meters more than train A. If speed of both train A & B is equal and they cross a pole in 16 sec and 24 secs respectively, then in what time train 'B' will cross 400 m long platform.

(1) 32 sec (2) 40 sec (3) 45 sec (4) 54 sec (5) 24 sec

18. Train A of length 120 m can cross a platform of length 240 m in 18 second the ratio of speed of train A and Train B is 4 : 5. Then find the length of Train B if train B can cross a pole in 12 seconds.

(1) 280 m (2) 300 m (3) 320 m (4) 350 m (5) 240 m

19 . A train crosses a stationary object in 10 seconds. What is the length of the train if the speed of the train is 25 m/s?

(1) 300 m (2) 250 m (3) 320 m (4) 200 m

20.A train running at 60 kmph crosses a pole in 30 seconds. What is the length of the train?

(1) 250 m (2) 750 m (3) 500 m (4) 450 m

.

PROBLEMS ON TRAINS