**TIME SPEED AND DISTANCE**

1. A person walking 5/6 of his usual rate is 40 minutes late. What is his usual time?   
a) 6 hours 20 minutes. b) 4 hours 40 minutes.  
c) 3 hours 30 minutes. d) 3 hours 20 minutes.

2. If I drive with 30 miles/hr I reach 1 hour before and if I drive with 20miles/hr I reach 1 hour late. Find the distance between 2 points and the speed with which I drive.

a)120miles and 24 miles/hr b) 120 miles and 5 miles/hr

c) 24 miles and 5 miles/hr d) None of these

3. If a person walks at 14 km/hr instead of 10 km/hr, he would have walked 20 km more.The actual distance travelled by him is:

a) 50 km b) 56 km c) 70 km d) 80 km

4. An emergency vehicle travels 10 miles at a speed of 50 miles per hour. How fast must the vehicle travel on the return trip if the round-trip travel time is to be 20 minutes?

a) 75 miles/hr b) 70 miles/hr c) 65 miles/hr d) 80 miles/hr

5. Dinesh travels from Chennai to Bangalore at a speed of 40 km/hr. He increases his speed by 50% during the return journey. What is the average speed of the entire journey?

a) 50 kmph b) 35 kmph c) 40 kmph d) 48 kmph

6. A thief steals a car at 2.30 p.m and drives it at 60 kmph. The theft is discovered at 3 p.m and the owner sets off in another car at 75 kmph. When will he catch the thief?

a) 4.30 p.m b) 4.45 p.m c) 5 p.m d) 5.15 p.m

7. A farmer travelled a distance of 61 km in 9 hours. He travelled partly on foot at 4 km/hr and partly on the bicycle at 9 km/hr. The distance travelled on foot is :

a) 14 km b) 15 km c) 16 km d) 17 km

8. Excluding stoppages, the speed of a bus is 54 kmph and including stoppages, it is 45kmph. For how many minutes does the bus stop per hour?

a) 4 b)6 c)8 d)10

**Trains**

9.  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:

a) 45 km/hr b) 50 km/hr c) 54 km/hr d) 55 km/hr

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

a) 200 m b) 225 m c) 245 m d) 250 m

11. A 600 meter long train crosses a signal post in 40 seconds. How long will it take to cross a 3 km long bridge, at the same speed?

a) 4 min b) 5 min c) 3 min 4 sec d) Data inadequate

12. 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

 a) 30 km /hr b) 45 km / hr c) 60 km/hr d) 75 km/hr

13. Two trains 120 km apart, travel towardseach other along the same track. The speeds of the trains are 11 km/hr and 13 km/hr.After how many hours will they collide?

a) 4 hours b) 5 hours c) 6 hours d) 2 hours

14. In the previous question, a fly buzzes back and forth between the two trains until they crash. If the speed of the fly is 20 km/hr, what is the distance travelled by the fly?

a) 50 km b) 100 km c) 75 km d) 120 km

15.Two trains for Palwal leave Kanpur at 10 a.m and 10:30 am and travel at the speeds of 60 Kmph and 75 Kmph respectively. After how many Km from Kanpur will the two trains be together?

a) 120 Kmb) 150 Km c) 180 Km d) Cannot be determined

### 16.Two trains A and B start simultaneously in the opposite direction from two points A and B arrive at their destinations 9 and 4 hours respectively after their meeting with each other. At what rate dose the second train B travels if the first train travels at 80 km per hour. a)60 km/h  b)100 km/h  c)120 km/h  d)80 km/h

### BOATS AND STREAMS

### 17. A boat travels 40 km upstream in 8 hours and 60 km downstream in 4 hours. What is the speed of the current?

a) 6 km/hr b) 5 km/hr c) 7 km/hr d) 4 km/hr

18. The current of a river is 3 mph. A boat takes the same time to go 12 miles downstream as it takes to go 8 miles upstream. Find the speed of the boat in still water.

a) 15 mph b) 12 mph c) 16 mph d) 18 mph

19. A motorboat, whose speed is 15 km/hr in still water goes 30 km downstream and comes back in a total of 4 hours 30 minutes. The speed of the stream (in km/hr) is:

a) 15 kmph b) 10 kmph c) 5 kmph d) 6 kmph

20. A man can walk up a moving up escalator in 30 sec. The same man can walk down this moving up escalator in 90 sec. Assume that his speed is constant in both cases. How much does he take to walk up the escalator when it was not working?

a) 120 sec b) 45 sec c) 90 sec d) 60 sec

21. A runs 8 steps up the escalator and it takes him 31.5 seconds to reach the top. If he runs 15 steps up the escalator he takes only 21 seconds. Find the number of steps in the escalator.

a) 13 b) 23 c) 31 d) 29

**RACES**

22. In a race A beats B by 150m and the ratio of speeds of A and B is 4:3, what is the length of the race track?

a) 1050m b) 600m d) 400 m d) 800m

23. In a 100 m race A beats B by 10 m and B beat C by 10 m. By what distance does A beat C?

a) 10m b) 19m c) 25m d) 11m

24.In a circular race of 1200m, A and B start from the same point and at the same time with speeds of 27kmph and 45 kmph.  Find when will they meet again for the first time on the track when they are running in the same direction and Opposite direction?  
a) 240, 60 Secs b) 200, 60 secs c) 200, 80 Sec d) None of these

25. P, Q, R run around a circular track 1200 m long with speed of 9, 18, 27 kmph.  If they start at the same point and at the same time in the same direction, when will they meet again at the starting point?  
a) 360 sec b) 480 sec c) 240 sec d) None of these

26. A and B run in opposite directions from a pt. P on a circle with different but constant speeds. A runs in clockwise direction. They meet for the first time at a distance of 900 m in clockwise direction from P and for the second time at a distance of 800 m in anticlockwise direction from P. If B is yet to complete one round, the circumference of the circle is  
a) 1700m b) 1250m c) 1300m d) 1200m

27. 2 men at same time start walking towards each other from A and B 72 kms apart. Speed of A is 4kmph Speed of B is 2 kmph in 1st hr, 2.5 in 2nd, 3 in 3rd and so on. When will they meet?  
a) in 7 hrs b) at 35 kms from A c) in 10 hrs d) midway

28. A man sitting inside the train near the window notices that he can count 21 electric posts in 1 minute. If they are known to be 50 metres apart what is the speed of the train?

a) 45 Kmph b) 60kmph c) 75 Kmph d) 90 Kmph

29. Two boats moving towards each other with speeds 20 m/sec and 16 m/sec are separated initially by a distance of 45 km. If the speed of the river is 5 m/sec and the faster boat is going upstream then how far apart are they 2 seconds before colliding?

a) 72 m b) 26m c) 82 m d) None of these

30. A man travels 760km to his home, partly by train and partly by car. He takes 8 hours, if he travels 160 km by train and the rest by car. He takes 12 minutes more, if he travels 240 km by train and the rest by car. What are the speeds of the train and of the car?

a) Speed of car=90 km/h, speed of train=60 km/h

b) Speed of car=100 km/h, speed of train=80 km/h

c) Speed of car=80 km/h, speed of train=70 km/h

d) Speed of car=100 km/h, speed of train=90 km/h