SPEED,TIME & DISTANCE

1. If speed of $3\frac{1}{3}$ m/s is converted to km/h, then it would be

   a) 8 km/h   b) 9 km/h   c) 10 km/h   d) 12 km/h

2. A car covers 300 km in 15 h. Find the speed of the car.

   a) 20 km/h   b)25 km/h   c) 15 km/h   d) 24 km/h

3. A car covers a distance of 690 km in 30 h. What is the average speed of the car?

   a) 25 km/h   b) 23km/h   c) 20 km/h   d) 18km/h

4. A bus is running with a uniform speed of 37 km/h. What distance will be covered by bus in 8h?

   a) 246km   b) 289 km   c) 296km   d) 276 km   e) None of the above

5. A bus covers a distance of 400 km with a speed of 20 km/h. What time is taken by the bus to cover this distance.

   a) 25 h   b) 5 h   c) 21 h   d) 20 h   e) None of the above

6. The speed of a bus is 72 km/h. The distance covered by the bus in 5 s is

   a) 50 m   b) 74.5 m   c) 100 m   d) 60 m

7. A person riding a bike crosses a bridge with a speed of 54 km/h. What is the length of the bridge, if he takes 4 min to cross the bridge?

   a) 3600 m   b) 2800 m   c) 3500 m   d) 4500 m   e) None of the above

8. Ram and Shyam are moving in the directions opposite to each other. The speeds of both persons are 10 km/h and 6 km/h, respectively. Find the speeds of Ram with respect of Shyam.

   a) 6 km/h   b) 16 km/h   c) 4 km/h   d) 8 km/h   e) None of the above

9. Two cars are moving in the same direction with their respective speeds of 9 km/h and 5 km/h. Find the relative speed of 1st car with respect of 2nd.

   a) 2 km/h   b) 4 km/h   c) 8 km/h   d) 6 km/h   e) None of the above

10. A man covered a distance of 12 km in 90 min by cycle. How much distance will he cover in 3h, if he rides the cycle at a uniform speed?

    a) 36 km   b) 24 km   c) 30 km   d) 27 km   e) None of the above

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

    a) 6 km   b) 9 km   c) 8km   d) 7 km

12. Two trains A and B travel from points X to Y and the ratio of the speeds of A to that of B is 2 : 7. Find the ratio of time taken by A and B to reach from X to Y.

    a) 2 : 5   b) 3 : 5   c) 3 : 8   d) 7 : 2   e) None of the above

13. Aashutosh can cover a certain distance in 84 min by covering $2/3^{rd}$ of distance at 4 km/h and the rest at 5 km/h. Find the total distance.

    a) 6 km   b) 8 km   c) 9 km   d) 15 km   11) None of the above

14. A man completes 30 km of a journey at 6 km/h and the remaining 40 km of the journey in 5 h. Find the average speed for the whole journey.

    a) $6\frac{4}{11}$ km/h   b) 7 km/h   c) $7\frac{1}{2}$ km/h   d) 8 km/h

15. A certain distance is covered at a certain speed. If half of the distance is covered in double time, the ratio of the two speeds is

    a) 4 : 1   b) 1 : 4   c) 1 : 2   d) 2 : 1   e) 1 : 1

16. A bullock cart has to cover a distance of 80 km in 10 h. If is covers half of the journey in $\frac{3}{5}$ the time, what should be its speed to cover the remaining distance in the left time?

a) 5 km/h   b) 10 km/h   c) 15 km/h   d) 18 km/h   e) 20 km/h

17. Moving 6/7 of its usual speed a train is 10 min late. Find its usual time to cover the journey.
    a) 25 min   b) 15 min   c) 35 min   d) 60 min   e) None of the above

18. Rani covers a certain distance by car driving at 5 km/h and returns the starting point riding on a scooter at 2 km/h. Find her average speed for the whole journey.
    a) $3\frac{6}{7}$ km/h   b) $2\frac{6}{7}$ km/h   c) $5\frac{6}{7}$ km/h   d) $7\frac{6}{7}$ km/h   e) None of the above

19. A car covers a distance from town A to town B at the speed of 58 km/h and covers the distance from town B to town A at the speed of 52 km/h. What is the approximate average speed of the car?
    a) 55 km/h   b) 52 km/h   c) 48 km/h   d) 60 km/h   e) None of the above

20. A car reached Raipur from Sonagarh in 35 min with an average speed of 69 km/h. If the average speed is increased by 36 km/h, how long will it take to cover the same distance?
    a) 24 min   b) 27 min   c) 23 min   d) 29 mim   e) None of the above

21. A students walks from his house at $2\frac{1}{2}$ km/h and reaches his school late by 6 min. Next day, he increases his speed by 1 km/h and reaches 6 min before school time. How far is the school from his house?
    a) $\frac{5}{4}$ km   b) $\frac{7}{4}$ km   c) $\frac{9}{4}$ km   d) $\frac{11}{4}$ km

22. A man riding a bicycle from his house at 10 km/h and reaches his office late by 6 min. He increases his speed by 2km/h and reaches 6 min before. How far is the office from his house?
    a) 6 km   b) 7km   c) 12 km   d) 16 km

23. 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/h and 11 km/h, respectively. The distance between them after 6 min will be
    a) 100 m   b) 180 m   c) 150 m   d) 125 m

24. A person can walk a certain distance and drive back in 6 h. He can also walk both ways in 10 h. How much time will he take to drive both ways?
    a) 2 h   b) $2\frac{1}{2}$ h   c) $5\frac{1}{2}$ h   d) 4 h

25. Two men A and B travel from point P to Q, a distance of 84 km at 12 km/h and 16 km/h, respectively. B reaches Q and returns immediately and meets A at R. Find the distance from P to R.
    a) 72 km   b) 76 km   c) 78 km   d) 68 km   e) None of the above

26. A theif is spotted by a policeman from a distance of 200 m. When the policeman starts chasing, the thief also starts running. If the speed of the thief be 16 km/h and that of the policeman be 20 km/h, how far the theif will have run before he is overtaken?
    a) 800 m   b) 850 m   c) 700 m   d) 650 m   e) None of the above

27. A person sets out to cycle from A to B and at the same time another person starts from B to A. After passing each other, they complete their journeys in 16 h and 25 h, respectively. Find the ratio of speeds of the 1st man to that of the 2nd man.
    a) 5 : 4   b) 5 : 3   c) 4 : 5   d) 3 : 5   e) None of the above

28. John started from A to B and Vinod from B to A. If the distance between A and B is 125 km and they meet at 75 km from A. What is the ratio of John's speed to that of Vinod's speed?
    a) 2 : 3   b) 3 : 2   c) 4 : 3   d) 5 : 4

29. A certain distance is covered at a certain speed. If half of this distance is covered in 4 times of the time, then find the ratio of the two speeds.
    a) 1 : 8   b) 1 : 4   c) 4 : 1   d) 8 : 1   e) None of the above

30. A man covers half of his journey at 6 km/h and the remaining half at 3 km/h. Find his average speed.

a) 3 km/h   b) 4 km/h   c) 4.5 km/h   d) 9 km/h

31. *A* is twice as fast as *B* and *B* is thrice as fast as *C*. The journey covered by *C* in 56 min will be covered by *A* in

a) $5\frac{1}{3}$ min   b) $2\frac{1}{3}$ min   c) $7\frac{1}{3}$ min   d) $9\frac{1}{3}$ min   e) None of the above

32. The ratio of speeds of a train and a car is 16 : 15, respectively and a bus covered a distance of 480 km in 8 h. The speed of the bus is $3/4^{th}$ of the speed of train. What distance will be covered by car in 6 h?

a) 450 km   b) 480 km   c) 360 km   d) Couldn't be determined   e) None of the above

33. The ratio of the speeds of *A* and *B* is 3 : 4. *A* takes 20 min more than the time taken by *B* to reach a particular, place. Find the time taken by *A* and *B*, respectively to reach that place.

a) 40 min and 30 min   b) 80 min and 60 min   c) 90 min and 45 min

d) 90 min and 50 min   e) None of the above.

34. The ratio between the speeds of two cars is 7 : 8. If the 2nd car runds 200 km in 5 h, then find the speed of the 1 st car.

a) 25 km/h   b) 28 km/n   c) 40 km/h   d) 35 km/h   e) None of the above

35. The ratio between the speeds of two buses is 5 : 3, If the 1st bus runs 400 lkm in 8 h, then find the speed of the 2nd bus.

a) 30 km/h   b) 15 km/h   c) 27 km/h   d) 37 km/h

36. The speeds of three cars are in the ratio of 2 : 3 : 5. Find the ratio of the time taken by the above cars to travel the same distance.

a) 15 : 10 : 6   b) 6 : 10 : 15   c) 10 : 15 : 6   d) 10 : 6 : 15   e) None of the above

37. Nilu covers a distance by walking for 6h. While returing, his speed decreases by 2 km/h and he takes 9 h to cover the same distance. What was her speed while returning?

a) 2 km/h   b) 5 km/h   c) 4 km/h   d) 7km/h   e) None of the above

38. If sohail walks from his home to office at 16 km/h, he is late by 5 min. If he walks at 20 km/h, he reaches 10 min before the office time. Find the distance of his office from his house.

a) 22 km   b) 20 km   c) 18 km   d) 16 km

39. A car covers a distance of 200 km in 2 h 40 min whereas a jeep covers the same distance in 2 h. What is the ratio of their speeds?

a) 3 : 4   b) 4 : 3   c) 4 : 5   d) 5 : 4   e) Nove of the above

40. Amit walks at a uniform speed of 4 km/h and 4 h after his start, Brijesh cycles after him at the uniform rate of 20 km/h. How far from the starting point will Brijesh catch Amit?

a) 15km   b) 18 km   c) 13 km   d) 20 km   e) None of the above

41. A walks at a uniform rate of 2 km/h and 2 h after his start, *B* cycles after him at the uniform rate of 5 km/h. How far from the starting point will *B* catch *A*?

a) $6\frac{2}{3}$ km   b) $6\frac{1}{3}$ km   c) $6\frac{5}{7}$ km   d) $6\frac{3}{7}$ km km e) None of the above

42. A person goes from one point to another point with a speed of 5 km/h and comes back to starting point with a speed of 3 km/h. Find the average speed for the whole journey.

a) 4. 5 km/h   b) 4 km/h   c) 4.25 km/h   d) 3.75 km/h

43. A train travels at the rate of 50 km/h without stoppages and it travels at 40 km/h stoppages. How many minutes does the train stop on an average per hour?

a) 6 min   b) 12 min   c) 18 min   d) 14 min   e) None of the above

44. A bus travels at the rate of 54 km/h without stoppages and it travels at 45km/h with stoppages. How many minutes does the bus stop on an average per hour?

a) 8 min   b) 10 min   c) 18 min   d) 14 min

45. A car travels a distance of 75 km at the speed of 25 km/h. It covers the next 25 km of its journey at the speed of 5 km/h and the last 50 km of its journey at the speed of 25 km/h. What is the average speed of the car?

a) 40 km/h   b) 25 km/h   c) 15km/h   d) 12.5 km/h e) None of the above

46. A car runs at the speed of 50 km/h when not service and runs at 60 km/h, when serviced. After servicing, the car covers a certain distance in 6 h. How much time will the car take to cover the same distance when not serviced?

a) 8.2 h   b) 6.5 h   c) 8 h   d) 7.2 h   e) None of the above

47. A boy walking at a speed of 15 km/h reaches his school 20 min late. Next time he increases his speed by 5 km/h but still he late by 5 min. Find the distance of the school from his home.

a) 5 km   b) 10 km   c) 15 km   d) 20 km

48. A person travels a certain distance at 3 km/h and reaches 15 min late.If he travels at 4 km/h, he reaches 15 min earlier. The distance he has to travel is

a) 4. 5 km   b) 6 km   c) 7. 2 km   d) 12 km