



1. A man driving at $\frac{3}{4}$ th of his original speed reaches his destination 20 minutes later than the usual time.

Then the usual time is

- a) 45 minutes b) 60 minutes
c) 48 minutes d) 120 minutes

2. A man started his journey 40 minutes later than usual time due to family fight. But due to urgent work he increased his speed to 160% of his usual speed so he reached 35 minutes earlier at his destination. What is the usual time taken by him for the journey?

- a) 3 hours b) 3 hours 15 minutes
c) 3 hours 30 hours d) 3 hours 20 minutes

3. A car travelling at an average speed of 72km/h takes 9 minute to travel a certain distance. By how much should it increase its speed to travel the same distance in 8 minutes? 72km/h

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

4. A man starts from his house and travelling at 30 km/h, he reaches his office late by 10 minutes, and travelling at 24 km/h, he reaches his office late by 18 minutes. The distance (in km) from his house to his office is

- a) 18 b) 16 c) 12 d) 20

5. If a man walks at the rate of 5 km/hours, he misses a train by 7 minutes. However if he walks at the rate of 6 km/hours, he reaches the station 5 minutes before the arrival of the train. The distance covered by him to reach the station is

- a) 6 km b) 7 km c) 6.25 km d) 4 km

6. A person covers a certain distance with certain speed if he increases his speed by 15 km/hr. Then he will be 16 min. early. By how much time he will be late if he reduces his speed by 12 km/hr, if his initial speed is 60 km/hr.

- a) 15 min b) 20 min c) 25 min d) 24 min

7. A man cycles with a speed of 10 km/h and reaches his office at 1 pm. However, when he cycles with a speed of 15 km/h, he reaches his office at 11 am. At what speed should he cycle, so that he reaches his office at 12 noon?

- a) 12.5 km/h b) 12 km/h

c) 13 km/h

d) 13.5 km/h

8. X and Y start at the same time to ride from place A to place B, which is 80 km away from A. X travels 4 km per hour slower than Y. Y reaches place B and at once turns back meeting X, 16 km from place B. Y's speed (in km/h) is:

- a) 8 b) 12 c) 15 d) 9

9. Three cars A, B and C started from a point at 5 pm, 6 pm and 7 pm, respectively and travelled at uniform speeds of 60 km/h, 80 km/h and x km/h, respectively in the same direction. If all the three meet at another point at the same instant during their journey, then what is the value of x ?

- a) 120 b) 110 c) 105 d) 100

10. A father and his son start at a point A with speeds of 12 km/h and 18 km/h respectively and reach another point B. If his son starts 60 min after his father at A and reaches B, 60 min before his father, then what is the distance between A and B?

- a) 90 km b) 72 km c) 36 km d) None of these FOR

11. Train A takes 45 minutes more than Train B to travel a distance of 450km. Due to engine trouble speed of train B falls by a quarter, so it takes 30 minutes more than train A to complete the same journey. What is the speed of train A

- a) 90 b) 120 c) 100 d) 110

12. Train A takes 1 hour more than train B to travel a distance of 720km. Due to engine trouble speed of train B falls by a third, so it takes 3 hour more than train A to complete the same journey? What is the speed of train A ?

- a) 80 b) 90 c) 60 d) 70

13. A takes 8 hours more than the time taken by B to cover a distance of 160 km. If A doubles his speed, he takes 3 hours more than B to cover the same distance. The speed (in km/h) of B is:

- a) 72 b) 70 c) 75 d) 80

14. Two person P & Q start walking simultaneously from A toward B. Distance between A and B is 100 km. Speed of P is 26 km/h and speed of Q is 54 km/h. After reaching at B person Q returns immediately towards A



and on the way person Q meets person P at the distance of X km from B. Find the value of X ?

- a) 25 b) 35 c) 20 d) 45

15. A policeman saw a thief at a distance of 800m and started chasing. The policeman can ran 53 km in 37 minutes and the thief can ran 53 km in 41 minutes. Find the distance ran by thief before being caught

a) 6700 b) 3700 c) 7100 d) 7400

16. A train after travelling 50kms meets with an accident and then proceeds at $\frac{3}{4}$ th of its former speed and arrives at its destination 35 minutes late. Had the accident occurred 24 kms further, it would have reached the destination only 25 minutes late. The speed of the train is?

a) 36 b) 48 c) 54 d) 58

17. A train after traveling 150 km meets with an accident and then proceeds at $\frac{3}{5}$ of its former speed and arrives at its destination 8 hours late. Had the accident occurred 360 km further, it would have reached the destination 2 hours late. What is the difference between the numerical values of the total distance traveled and the normal speed of the train?

a) 590 b) 630 c) 670 d) 592

18. A motorcyclist has to cover a distance of 200 km to reach city B from city A. After travelling a certain distance, his motorcycle develops a problem and travels at $\frac{3}{4}$ th of its original speed, thereby he reached B 1 hour late. Had the problem developed 30 KM earlier, he would have reached B 12 minutes later. Find the initial distance traveled without the problem and the speed over that part of the journey.

a) 50, 60 b) 40, 40 c) 60, 30 d) 50, 50

19. A train travels at a uniform speed. After traveling for an hour, due to mechanical fault, it traveled at $\frac{3}{5}$ th of the original speed and reached the destination 2 hours late. If the fault had occurred after traveling another 50 miles, the train would have reached 40 min earlier. What is the distance between two stations?

a) 150 b) 250 c) 240 d) 200

20. A bus meets with an auto at 10:00 am while going the same way in the same direction towards Haridwar.

The Bus reach Haridwar at 12:30 p.m. and takes 1 hour rest there. While returning on the same way, bus meets with the same auto half an hour later. At what time the auto will reach Haridwar?

- a) 3 Pm b) 4 pm c) 3:30 pm d) 5 pm

21. A father picks his child at 3:30 pm from school. One day the child left the school at 2:30 pm and started walking towards home at the speed of 6 km/h. He meets his father on the way and they reached home 24 minutes early than usual time. Find the speed of the father (in km/h

- a) 16 b) 20 c) 24 d) 32

22. Due to inclement weather, an air plane reduced its speed by 300 km/hr, and reached the destination of 1200 km late by 2 hrs. Then the schedule duration of the flight was

- a) 1 hour b) 1.5 hour c) 2 hour d) 2.5 hour

23. A train covers 450 km at a uniform speed. If the speed had been 5 km/h more, it would have taken 1 hour less to cover the same distance. How much time will it take to cover 315 km at its usual speed?

- a) 7 h 52 m b) 6 h 30 m c) 6 h 18 m d) 7 h

24. A train is to cover 370 km at a uniform speed. After running 100 km. the train could run at a speed 5 km/h less than is normal speed due to some technical fault. The train got delayed by 36 minutes. What is the normal speed of the train, in km/h?

- a) 40 b) 48 c) 50 d) 45

25. Akhil takes 30 minutes extra to cover a distance of 150 km if he drives 10 km/h slower than his usual speed. How much time will he take to drive 90 km if he drives 15 km per hour slower than his usual speed?

- a) 2 h 45 m b) 2 h 30 m c) 2 h d) 2 h 15 m

26. A passenger train departs from Delhi at 6 p.m. for Mumbai. At 9 p.m. an express train, whose average speed exceeds that of the passenger train by 15 km / hour leaves Mumbai for Delhi. Two trains meet each other mid-route. At what time do they meet, given that the distance between the cities is 1080 km?

- a) 9 p.m. b) 2 a.m. c) 12 mid-night d) 6 a.m.



27. A jogger covered a certain distance at some speed. Had he moved 3 km/h faster, he would have taken 20 minutes less. If he had moved 1 km/h slower, he would have taken 10 minutes more. What is the distance that he jogged?
a) 9 b) 10 c) 12 d) 8

28. A car travels from P to Q at a constant speed. If its speed were increased by 10 km/h, it would have been taken one hour lesser to cover the distance. It would have taken further 45 minutes lesser if the speed was further increased by 10 km/h. The distance between the two cities
a) 540 b) 420 c) 600 d) 620

29. A man travels some distance at a speed of 12 km/hr and returns at a speed of 9 km/hr. If the total time taken by him is 2 hrs 20 min, the distance is
a) 35 km b) 21 km c) 9 km d) 12 km

30. A delivery boy started from his office at 10 a.m. to deliver an article. He rode his scooter at a speed of 32 km/h. He delivered the article and waited for 15 minutes to get the payment. After the payment was made, he reached his office at 11:25 a.m. travelling at a speed of 24 km/h. Find the total distance travelled by the boy
a) 40 km b) 30 km c) 32 km d) 16 km

31. A car covers four successive 7 km distances at speeds of 10 km/hour, 20 km/hour, 30 km/hour and 60 km/hour respectively. Its average speed over this distance is
a) 30 km/hour b) 20 km/hour
c) 60 km/hour d) 40 km/hour

32. A car covers $1\frac{5}{8}$ of the distance from A to B at the speed of 8 km/hr, $1\frac{10}{11}$ of the distance at 25 km per hour and the remaining at the speed of 20 km per hour. Find the average speed of the whole journey
a) 12.625 km/hr b) 13.625 km/hr
c) 14.625 km/hr d) 15.625 km/hr

33. One-fifth of a journey is covered at a speed of 30 km/h, one-fourth of the journey at a speed of 25 km/h and the rest at 60 km/h. What is the average speed (in km/h, correct to one decimal place) for the whole journey?

a) 38.7 b) 30.6 c) 40.5 d) 25. \diamond

34. A person covers 40% of the distance from A to B at 8 km/hr, 40% of the remaining distance at 9 km/hr and the rest at 12 km/hr. His average speed in (km/hr) for the journey is:
a) $9\frac{5}{8}$ b) $9\frac{2}{3}$ c) $9\frac{3}{8}$ d) $9\frac{1}{3}$

35. A car travels along the four sides of a square at speeds v , $2v$, $3v$ and $4v$, respectively. If u is the average speed of the car in its travel around the square, then which one of the following is correct?
a) $u = 2.25v$ b) $u = 3v$ c) $v < u < 2v$ d) $3v < u < 4v$

36. A race has three parts. The speed and time required to complete the individual part for a runner is displayed on the following chart. What is the average speed of this runner
a) 8.17 km/h b) 8 km/h c) 7.80 km/h d) 7.77 km/h

37. A and B started their journeys from X to Y and Y to X, respectively. After crossing each other, A and B completed the remaining parts of their journeys in $6\frac{1}{8}$ h and 8 h respectively. If the speed of B is 28 km/h, then the speed (in km/h) of A is:
a) 40 b) 42 c) 32 d) 36

38. A and B start moving from places X to Y and Y to X, respectively, at the same time on the same day. After crossing each other, A and B take $5\frac{4}{9}$ hours and 9 hours, respectively, to reach their respective destinations. If the speed of A is 33 km/h, then the speed (in km/h) of B is:
a) $24\frac{1}{3}$ b) $25\frac{2}{3}$ c) 22 d) 2

39. Suman travels from place X to Y and Rekha travels from Y to X, simultaneously. After meeting on the way, Suman and Rekha reach Y and X, in 3 hours 12 minutes and one hour 48 minutes, respectively. If the speed of Rekha is 9 km/h, then the speed (in km/h) of Suman is:
a) $7\frac{1}{2}$ b) $6\frac{3}{4}$ c) 6 d) 8

40. Suresh started travelling from place X to Y and Rakesh from Y to X, at 9:00 AM. After meeting on the way, Suresh and Rakesh reach Y and X, in 3 hours 12 minutes and one hour 48 minutes, respectively. At what time did they meet each other on the way.



Time and Distance

- a) 11:24 AM b) 11:40 AM
c) 11:36 AM d) 12:00 AM

41. P and Q are 27 km away. Two train with speed of 24 km/hr and 18 km/hr respectively start simultaneously from P and Q and travel in the same direction .They meet at a point R beyond Q.

- a) 48 km b) 36 km c) 126 km d) 81 km

42. A and B are 15 kms apart and when travelling towards each other meet after half an hour whereas they meet two and a half hours later if they travel in the same direction. The faster of the two travels at the speed of

- a) 15 km/hr b) 18 km/hr c) 10 km/hr d) 8 km/hr

43. The distance between two persons A and B is 600 km. When they start moving towards each other they meet in 12 hours. If A started moving 5 hours after B, then they meet in the next 10 hours. Find the speed of B.

- a) 20 km/hr b) 25 km/hr c) 30 km/hr d) 15 km/hr

44. Two brothers started walking towards each other from two different cities which are 110 km apart. Their initial speed was 5 km/hr each. After every hour, the younger brother decreased his speed by 1 km/hr due to tiredness but the elder brother increased his speed by 1 km/hr. In how many hours, from starting the journey, they will meet each other.

- a) 9 h b) 10 h c) 10.5 h d) 11 h

45. Two trains are running 40 km/hr and 20 km/hr respectively in the same direction. The fast train completely passes a man sitting in the slow train in 5 seconds. The length of the fast train is

- a) 23 2 9 m b) 27 m c) 27 7 9 m d) 23 m

46. A train travelling at the speed of x km/h crossed a 200 m long platform in 30 seconds and overtook a man walking in the same direction at the speed of 6 km/h in 20 seconds. What is the value of x

- a) 50 b) 54 c) 56 d) 60

47. A passenger train and a goods train are running in the same direction on parallel railway track. If the passenger train now takes three times as long to pass

the goods train, as when they are running in opposite directions, then what is the ratio of the speed of the passenger train to that of the goods train?

- a) 2 : 1 b) 3 : 2 c) 4 : 3 d) 1 : 1

48. 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.

- a) 3km/hour b) 4 km/hour
c) 2km/hour d) 5km/hour

49. A motor boat, travelling at the same speed, can cover 25 km upstream and 39 km downstream in 8 hours. At the same speed, it can travel 35 km upstream and 52 km downstream in 11 hours. The speed of the stream is

- a) 2 km/hr b) 3 km/hr c) 4 km/hr d) 5 km/hr

50. A boat can go 5 km upstream and $7\frac{1}{2}$ km downstream in 45 minutes. If can also go 5 km downstream and 2.5 km upstream in 25 minutes. How much time will it take to go 6 km upstream?

- a) 24 b) 30 c) 36 d) 32

51. A boat covers a round trip journey between two points A and B in a river in T hours. If its speed in still water becomes 2 times, it would take $\frac{80}{161}T$ hours for the same journey. Find the ratio of its speed in still water to the speed of the river.

- a) 11 : 1 b) 161 : 40 c) 1 : 11 d) 2 : 1

52. X, Y are two points in river. Points P and Q divide the straight line XY into three equal parts. The river flows along XY and the time taken by a boat to row from X to Q and from Y and Q are in the ratio 4 : 5. The ratio of the speed of the boat downstream to that of the river current is equal to:

- a) 10 : 3 b) 3 : 10 c) 3 : 4 d) 7 : 3

53. A man can row a distance of 8 km downstream in a certain time and can row 6 km upstream in the same time. If he rows 24 km upstream and the same distance downstream in $1\frac{3}{4}$ hours, then the speed (in km/h) of the current is:

- a) $4\frac{1}{2}$ b) $2\frac{1}{2}$ c) 4 d) 3



54. The speed of a boat downstream is **150%** more than its speed upstream. If the time taken by the boat for going **80 km** downstream and **50 km** upstream is **8.2 hours**, then what is the speed (in km/h) of the boat downstream?
a) 16 b) 30 c) 24 d) 25

55. Three athletes run a **4 km** race. Their speeds are in the ratio **16 : 15 : 11**. When the winner wins the race, then the distance between the athlete in the second position to the athlete in the third position is
a) **1000 m** b) **800 m** c) **750 m** d) **600 m**

56. In a race of **1000 m**, A beats B by **150 m**, while in another race of **3000 m**, C beats D by **400 m**. Speed of B is equal to that of D. (Assume that A, B, C, and D run with uniform speed in all the events). If A and C participate in a race of **6000 m**, then which one of the following is correct?
a) A beats C by **250 m**. b) C beats A by **250 m**.
c) A beats C by **115.38 m**. d) C beats a by **115.38 m**.

57. In a race of **1000 m**, A beats B by **100 m** or **10s**. If they start a race of **1000 m** simultaneously from the same point and if B gets injured after running **50 m** less than half the race length and due to which his speed gets halved, then by how much time will A beat B?
a) 65 s b) 60 s c) 50 s d) 45 s

58. Three runners A, B and C run a race, with runner A finishing **12 meters** ahead of runner B and **18 meters** ahead of runner C, while runner B finishes **8 meters** ahead of runner C. Each runner travels the entire distance at a constant speed. The length of the race is A,
a) 36 metres b) 48 metres c) 60 metres d) 72 metres

59. In a race A, B and C take part. A beats B by **30 m**, B beats C by **20 m** and A beats C by **48 m**. Which of the following is/are correct?
1) The length of the race is **300 m**.
2) The speeds of A, B and C are in the ratio **50 : 45 : 42**.
a) Only 1 b) Only 2
c) Both 1 and 2 d) Neither 1 nor 2

60. Two men, A and B run a **4 km** race on a course **0.25 km** round. If their speeds are in the ratio **5 : 4**, how often does the winner pass the another?
a) Once b) Twice c) Thrice d) Four times

61. A man travelled a distance of **80 km** in **7 hrs** partly on foot at the rate of **8 km per hour** and partly on bicycle at **16 km per hour**. The distance travelled on the foot is
a) 32 km b) 48 km c) 36 km d) 44 km

62. A farmer travelled a distance of **61 km** in **9 hours**. He travelled partly on foot at the rate **4 kmph** and partly on bicycle at the rate **9 kmph**. The distance travelled on foot is
a) 16 km b) 14 km c) 17 km d) 15 km

63. A man travels **450 km** to his home partly by train and partly by car. He takes **8 hrs 40 mins** if he travels **240 km** by train and rest by car. He takes **20 mins** more if he travels **180 km** by train and the rest by car. The speed of the car in km/hr is
a) 45 b) 50 c) 60 d) 48

64. It takes **11 h** for a **600 km** journey if **120 km** is done by train and the rest by car. It takes **40 min** more if **200 km** are covered by train and the rest by car. What is the ratio of speed of the car to that of the train
a) 3 : 2 b) 2 : 3 c) 3 : 4 d) 4 : 3

65. On a river, Q is the mid-point between two points P and R on the same bank of the river. A boat can go from P to Q and back in **12 hours**, and from P to R in **16 hours 40 min**. How long would it take to go from R to P?
a) $3\frac{1}{3}$ hr. b) 5 hr c) $6\frac{2}{3}$ hr d) $7\frac{1}{3}$ hr

66. B starts **4 minutes** after A from the same point, for a place at a distance of **7 miles** from the starting point. A on reaching the destination turns back and walks a mile where he meets B. If A's speed is a mile in **8 minute** then B's speed is a mile in minutes
a) 9 b) 12 c) 10 d) 8

67. B starts **4.5 minutes** after A from the same point, for a place at a distance of **3.5 miles** from the starting point. A on reaching the destination turns back and



walk a mile where he meets

a) 307.5 km b) 300 km c) 350 km d) 412 km

B. If A's speed is a mile in 6 minutes then B's speed is a mile in minutes?

a) 8 b) 10 c) 12 d) 9

68. Vaibhav and Vignesh each travel a distance of 78 km such that the speed of Vaibhav is faster than that of Vignesh. The sum of their speeds is 91 k/h and the total time taken by both is 3 hours and 30 minutes.

The speed of Vaibhav is

a) 48 km/h b) 45 km/h c) 45 km/h d) 52 km/h

69. A takes 2 hours more than B to cover a distance of 40 km. If A doubles his speed, he takes 1 1/2 hours more than B to cover 80 km. To cover a distance of 90 km, how much time will B take travelling at his same speed?

a) 1 1/8 hr b) 1 1/3 hr c) 1 3/8 hr d) 1 1/6 hr

70. A train runs first 75 km at a certain uniform speed and next 90 km at an average speed of 10 km/h more than the normal speed. If it takes 3 hours to complete the journey, then how much time will the train take to cover 300 km with normal speed?

a) 6 hours b) 5 hours 15 minutes
c) 5 hours d) 5 hours 25

71. A man rides one-third of the distance from A to B at the rate of x km/h and the remainder at the rate of $2y$ km/h. If he had travelled at a uniform rate of $6z$ km/h, then he could have ridden from A to B and back again in the same time. Which one of the following is correct?

a) $z = x + y$ b) $3z = x + y$
c) $1z = 1x + 1y$ d) $12z = 1x + 1y$

72. Speed of a man is 90 km/hr. After every 24 minutes he reduces his speed by 5 km/hr. If he has to travel 173 km, find out the time taken to cover this distance.

a) 5.5 hours b) 2.2 hours c) 5.2 hours d) 2.5 hours

73. An express train travelled at an average speed of 100 km/hr, stopping for 3 minutes after every 75 km. A local train travelled at a speed of 50 km/hr, stopping for 1 minute after every 25 km. If the trains began travelling at the same time, Find the distance travelled by the local train when the express train travel 600 km.

74. If a person travels at a speed of 48 km/h, he will reach his destination on time. He covers two-thirds of his journey in five-sixths of time. At what speed (in km/h) should he travel to cover the remaining distance to reach his destination on time?

a) 100 b) 96 c) 50 d) 48

75. A person has to cover a distance of 160 km in 15 hours. If he covers 3/4 of the distance in 2/3 of the time, then what should be his speed (in km/h) to cover the remaining distance in the remaining time?

a) 6.4 b) 6 c) 6.5 d) 8

76. During his morning walk. Atul, walks for 45 minutes at a speed of 8 km/h and takes 15 rounds of a park. Shekhar takes 10 rounds of the same park in 40 minutes. What is the speed of Shekhar in km/h?

a) 7.2 b) 6 c) 6.75 d) 7.5

77. A bike consumes 20 ml of petrol per kilometre, if it is driven at a speed in the range of 25-50 km/h and consumes 40 mL of petrol per kilometre at any other speed. How much petrol is consumed by the bike in travelling a distance of 50 km, if the bike is driven at a speed of 40 km/h for the first 10 km, at a speed of 60 km/h for the next 30 km and at a speed of 30 km/h for the last 10 km

a) 1 L b) 1.2 L c) 1.4L d) 1.6 L