Time speed distance
[LEVEL – BEGINNER]

1. A train is moving with a speed of 90 km/h. Its speed is

    A] 25 m/s   B] 30 m/s   C] 40 m/s   D] 50 m/s

2. A train is moving with a speed of 30 m/s. Its speed is

    A] 72 km/h   B] 100 km/h   C] 120 km/h   D] 108 km/h

3. A train travels at 40 km/hr. How many meters will it travel in 18 seconds?

    A] 210 m   B] 200 m   C] 250 m   D] 350 m

4. An athlete runs 200 meters race in 24 seconds. His speed is

    A] 20 km/hr   B] 24 km/hr   C] 28.5 km/hr   D] 30 km/hr

5. A man riding his bicycle covers 150 meters in 25 seconds. What is his speed in km/hr?

    A] 20 km/hr   B] 21.6 km/hr   C] 23 km/hr   D] 25km/hr

6. In what time can Sonali cover a distance of 400 m, if she runs at a speed of 20 km/hr?

    A] $1\frac{1}{5}$ min   B] $1\frac{1}{2}$ min   C] 2 min   D] 3 min

7. A person starting from his house covers a distance at 20 km/hr and returns to the starting place at 30 km/hr. His average speed during whole journey is

    A] 25 km/hr   B] 24 km/hr   C] 27 km/hr   D] 22 km/hr

8. A person starting from his house covers a distance at 15 km/hr and returns to the starting place at 10 km/hr. His average speed during whole journey is

    A] 11 km/hr   B] 12 km/hr   C] $7\frac{1}{2}$ km/hr   D] 13 km/hr

9. 3 person A, B and C covers a distance at 10 km/hr ,12 km/hr and 15 km/hr. the average speed is:

    A] 11 km/hr   B] 12 km/hr   C] 7 km/hr   D] 13 km/hr

10. A man completes 30 km of a journey at 6 km/hr and the remaining 40 km of the journey in 5 hours. His average speed for the whole journey is

    A] $6\frac{4}{11}$ km/hr   B] 7 km/hr   C] $7\frac{1}{2}$ km/hr   D] 8 km/hr

11. A car covers a distance of 720 km at a constant speed. If the speed of the car would have been 10 km/hr more, then it would have taken 1 hrs less to cover the same distance. What is the original speed of the car?

    A] 90 km/hr   B] 80 km/hr   C] 85 km/hr   D] 75 km/hr

12. A car covers a distance of 715 km at a constant speed. If the speed of the car would have been 10 km/hr more, then it would have taken 2 hrs less to cover the same distance. What is the original speed of the car?

    A] 45 km/hr   B] 50 km/hr   C] 55 km/hr   D] 65 km/hr

13. A man covers 1/3 of his journey at 40 km/hr and the remaining at 20 km/hr. He takes 15 hour in total journey. The distance total journey is ?

    A] 300 km   B] 360 km   C] 240km   D] 120 km

14. A man covers 1/4 of his journey at 20 km/hr and the remaining at 30 km/hr. He takes 15 hour in total journey. The distance total journey is ?

    A] 400 km   B] 460 km   C] 440km   D] 420 km

15. A student walks from his house at 10 km/hr and reaches his school late by 6 minutes. Next day, he increases his speed by 15 km/hr and reaches 4 minutes before school time. How far is the school from his house?

   A] 12 km   B] 8 km   C] 5 km   D] 10 km

16. If a student walks from his house to school at 5km/hr, he is late by 30 minutes. However, if he walks at 6 km/hr, he is late by 5 minutes only. The distance of his school from his house is

   A] 2.5 km   B] 3.6 km   C] 5.5 km   D] 12.5 km

17. Walking at 7/8 of its usual speed, a train is 10 minutes too late. Find its usual time to cover the journey.

   A] 60 min   B] 70 min   C] 50 min   D] 40 min

18. The speed of A and B are in the ratio 3:4. A takes 20 minutes more than B to reach the destination. How much time will take A ?

   A] $1\frac{1}{3}$ hrs   B] 2 hrs   C] $1\frac{2}{3}$ hrs   D] $2\frac{2}{3}$ hrs

19. The distance between two stations A and B is 440 km. A train starts at 4 p.m. from A and move towards B at an average speed of 40 km/hr. Another train starts B at 5 p.m. and moves towards A at an average speed of 60 km/hr. How far from A will the two trains meet and at what time?

   A] 200,8 p.m.   B] 300,9 p.m.   C] 200,9 p.m.   D] 300,8 p.m.

20. The distance between two stations A and B is 365 km. A train starts at 10 a.m. from A and move towards B at an average speed of 65 km/hr. Another train starts B at 11 a.m. and moves towards A at an average speed of 35 km/hr. How far from B will the two trains meet and at what time?

   A] 105,2 p.m.   B] 100,4 p.m.   C] 100,2 p.m.   D] 105,5 p.m.

21. A constable is 114 m behind a thief. The constable runs 21 m and the thief 15 m in a minute. In what time will the constable catch the thief?

   A] 16 min   B] 17 min   C] 18 min   D] 19 min

22. A thief is spotted by a policeman from a distance of 100 m. When the policeman starts the chase, the thief also starts running. If the speed of the thief 8 km/hr and that of the policeman 10 km/hr, how far the thief will have run before he is overtaken?

   A] 200 m   B] 300 m   C] 400 m   D] 500 m

23. I walk a certain distance and ride back taking a total time of 30 min. I could walk both ways in 40 min. How long would it take me to ride both ways ?

   A] 30 min   B] 25 min   C] 20 min   D] 35 min

24. I walk a certain distance and ride back taking a total time of 36 min. I could ride both ways in 30 min. How long would it take me to walk both ways?

   A] 40 min   B] 45 min   C] 42 min   D] 52 min

25. A train reach a station at a certain time and at a fixed speed. If the train had been 6 km/hr faster, it would have taken 4 hours less than the scheduled time. And, If the train were slower by 6 km/hr, the would have taken 6 hours more than the scheduled time. The length of journey is :

   A] 700   B] 720   C] 740   D] 760

[LEVEL – INTERMEDIATE]

1. A train reach a station at a certain time and at a fixed speed. If the train had been 10 km/hr faster, it would have taken 2 hours less than the scheduled time. And, If the train were slower by 12 km/hr, the would have taken 3 hours more than the scheduled time. The length of journey is :

    A] 2000   B] 2200   C] 2400   D] 2600

2. A train without stoppages travels at the rate of 50 km/hr and stoppages it travels at 45 km/hr. How many minutes does train stop on an average per hour

    A] 5 min   B] 6 min   C] 8 min   D] 10 min

3. An aeroplane covers a certain distance at a speed of 240 kmph in 5 hours. To cover the same distance in 1 hours, it must travel at a speed of:

    A] 300 kmph   B] 360 kmph   C] 600 kmph   D] 1200 kmph

4. 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

5. A train can travel 50% faster than a car. Both start from point A at the same time and reach point B 75 kms away from A at the same time. On the way, however, the train lost about 12.5 minutes while stopping at the stations. The speed of the car is:

    A] 100 kmph   B] 110 kmph   C] 120 kmph   D] 130 kmph

6. In a flight of 600 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 km/hr and the time of flight increased by 30 minutes. The duration of the flight is:

    A] 1 hour   B] 2 hours   C] 3 hours   D] 4 hours

7. A man complete a journey in 10 hours. He travels first half of the journey at the rate of 21 km/hr and second half at the rate of 24 km/hr. Find the total journey in km.

    A] 220 km   B] 224 km   C] 230 km   D] 234 km

8. A Man travelled a distance of 61 km in 9 hours. He travelled partly on foot at 4 km/hr and partly on bicycle at 9 km/hr. What is the distance travelled on foot?

    A] 16 km   B] 4 km   C] 12 km   D] 10 km

9. A man on tour travels first 160 km at 64 km/hr and the next 160 km at 80 km/hr. The average speed for the first 320 km of the tour is:

    A] 35.55 km/hr   B] 36 km/hr   C] 71.11 km/hr   D] 71 km/hr

10. A car travelling with 2/3 of its actual speed covers 42 km in 1 hr 40 min 48 sec. Find the actual speed of the car.

    A] 11 km/hr   B] 25 km/hr   C] 55 km/hr   D] 37.5 km/hr

11. 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:

    A] 5 kmph   B] 6 kmph   C] 6.25 kmph   D] 7.5 kmph

12. Robert is travelling on his cycle and has calculated to reach point A at 2 P.M. if he travels at 10 kmph, he will reach there at 12 noon if he travels at 15 kmph. At what speed must he travel to reach A at 1 P.M.?

    A] 8 kmph   B] 11 kmph   C] 12 kmph   D] 14 kmph

13. It takes eight hours for a 600 km journey, if 120 km is done by train and the rest by car. It takes 20 minutes more, if 200 km is done by train and the rest by car. The ratio of the speed of the train to that of the cars is:

    A] 2 : 3   B] 3 : 2   C] 3 : 4   D] 4 : 3

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

    A] 14 km   B] 15 km   C] 16 km   D] 17 km

15. A man covered a certain distance at some speed. Had he moved 3 kmph faster, he would have taken 40 minutes less. If he had moved 2 kmph slower, he would have taken 40 minutes more. The distance (in km) is:

A] 35   B] 36   C] 37   D] 40

16. Robert is travelling on his cycle and has calculated to reach point A at 2 P.M. if he travels at 10 kmph, he will reach there at 12 noon if he travels at 15 kmph. At what speed must he travel to reach A at 1 P.M.?

A] 9 km/hour   B] 10 km/hour   C] 11 km/hour   D] 12 km/hour

17. A person travels from P to Q at a speed of 40 km/hr and returns by increasing his speed by 50%. What is his average speed for both the trips?

A] 44 km/hour   B] 46 km/hour   C] 48 km/hour   D] 50 km/hour

18. The distance between two cities A and B is 330 Km. A train starts from A at 8 a.m. and travel towards B at 60 km/hr. Another train starts from B at 9 a.m and travels towards A at 75 Km/hr. At what time do they meet?

A] 10 am   B] 11 am   C] 12 pm   D] 1pm

19. A man in a train notices that he can count 41 telephone posts in one minute. If they are known to be 50 meters apart, then at what speed is the train travelling?

A] 60 km/hr   B] 100 km/hr   C] 110 km/hr   D] 120 km/hr

20. A train traveled 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] 6 hours 24 mins   B] 6 hours 21 mins   C] 6 hours 18 mins   D] 6 hours 15 mins

21. A postman riding a bicycle at 15 km per hour reach a village in 4 hrs. If he is delayed by 1 hour at the start, then in order to reach his destination in time, he should ride with a speed of :

A] 20 kmph   B] 24 kmph   C] 27 kmph   D] 28 kmph

22. A walks around a circular field at the rate of one round per hour while B runs around it at the rate of six rounds per hour. They start at same point at 7:30 am. They shall first cross each other at?

A] 7:15 am   B] 7:30 am   C] 7: 42 am   D] 7:50 am

23. Two boys starting from the same place walk at a rate of 5kmph and 5.5kmph respectively. What time will they take to be 8.5km apart, if they walk in the same direction?

A] 15 hours   B] 16 hour   C] 17 hours   D] 18 hours

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

A] 8 minutes   B] 10 minutes   C] 12 minutes   D] 14 minutes

25. 2 trains starting at the same time from 2 stations 200 km apart and going in opposite direction cross each other at a distance of 110 km from one of the stations. What is the ratio of their speeds?

A] 11:9   B] 13:9   C] 17:9   D] 21:9

[LEVEL – EXPERT]

1. I had to catch a bus which was 225 m ahead of me. The bus also started at the same time. If the speed of the bus was 2.5m/s and my speed was 36 kmph, In how much time can I catch the bus?

A] 20 sec   B] 25 sec   C] 30 sec   D] 40 sec

2. The distance of my house to my friends house is 12 km. I walked at the speed of 4 kmph and after every km took rest of 10 minutes. How much time did it take for me to reach my friend's house?

A] 3 hrs   B] 4 hr 50 min   C] 5 hrs   D] none

3. A train travelling at 72kmph starts overtaking a bike travelling at 36 kmph at 4 P.M and overtakes him in 20 sec. Then the train travels for 30 minutes and then start crossing another bike in opposite direction with speed of 36kmph. When will the second bike meet the first bike

A] 4:45 p.m.　　　　B] 5:00 p.m.　　　　C] 5:15 p.m.　　　　D] none

4. Bus B left town P for town Q at 6 a.m.@ 36kmph. While another bus C left town Q for town P at 7 : 30 a.m. @24kmph. At what would they be 12 km apart of distance between P and Q is 72km?

A] 7:32 a.m.　　　　B] 7:36 a.m.　　　　C] 7:40 a.m.　　　　D] 7:48 a.m.

5. A has covered 1/3 of total distance when his scooter failed. he parked it and cover the remaining distance by foot walking 22 times as much time as riding. how many times his riding speed more then his walking speed?

A] 9　　　　B] 20　　　　C] 19　　　　D] 10

6. While travelling from office to home alok's car gave him a trouble so he took 25% more time then his usual time to reach home. His speed in this case is what part of usual speed?

A] 4/5　　　　B] 5/4　　　　C] 2/3　　　　D] None

7. A father starts from home at 3 :00 p.m. to pick his son from school at 4 pm. One day the school got over early, at 3:00 p.m. The son start walking home. He met his father on the way and both returned 15 minutes early then the usual time. If speed of father is 35kmph then find speed of son in kmph?

A] 4　　　　B] 5　　　　C] 6　　　　D] 7

8. PQ is a tunnel. A dog sits at the distance of 5/ 11 of PQ from P. The train whistle coming from any end of the tunnel would make the dog run. If a train approaches P and dog runs towards P the train would hit the dog at P. If the dog runs towards Q instead, it would hit the dog at Q. Find ratio of speed of train and dog?

A] 5:2　　　　B] 16:5　　　　C] 11:1　　　　D] 34:3

9. A police man was travelling @ 90kmph. He crosses a thief travelling @ 60kmph in opposite direction. He had to travel for another 6 minutes before he would U turn and chase the thief? After they crossed each other how long in minutes police will catch the thief?

A] 30　　　　B] 36　　　　C] 42　　　　D] 45

10. Two men A and B started walking towards each other's starting point simultaneously from two points X and Y which are 12 km apart. They meet after 1 hr. After meeting A increased his speed by 6kmph. B reduced his speed by 6 kmph. They arrived at their destinations simultaneously. Find the initial speed of A?

A] 2 kmph　　　　B] 3 kmph　　　　C] 4 kmph　　　　D] 5 kmph

RACES

[LEVEL – BEGINNER]

1. In a 100 m race, A can give B 10 m and C 28 m. In the same race B can give C:

A] 18 m　　　　B] 20 m　　　　C] 27 m　　　　D] 9 m

2. A and B take part in 100 m race. A runs at 5 kmph. A gives B a start of 8 m and still beats him by 8 seconds. The speed of B is:

A] 5.15 kmph　　　　B] 4.14 kmph　　　　C] 4.25 kmph　　　　D] 4.4 kmph

3. In a 500 m race, the ratio of the speeds of two contestants A and B is 3 : 4. A has a start of 140 m. Then, A wins by:

    A] 60 m   B] 40 m   C] 20 m   D] 10m

4. In a 100 m race, A beats B by 10 m and C by 13 m. In a race of 180 m, B will beat C by:

    A] 5.4 m   B] 4.5 m   C] 5 m   D] 6 m

5. At a game of billiards, A can give B 15 points in 60 and A can give C to 20 points in 60. How many points can B give C in a game of 90?

    A] 30 points   B] 20 points   C] 10 points   D] 12 points

6. In a race of 200 m, A can beat B by 31 m and C by 18 m. In a race of 350 m, C will beat B by:

    A] 22.75 m   B] 25 m   C] 19.5 m   D] 74m

7. In 100 m race, A covers the distance in 36 seconds and B in 45 seconds. In this race A beats B by:

    A] .20 m   B] 25 m   C] 22.5 m   D] 9 m

8. In a game of 100 points, A can give B 20 points and C 28 points. Then, B can give C:

    A] 8 points   B] 10 points   C] 14 points   D] 40 points

9. In a 200 meters race A beats B by 35 m or 7 seconds. A's time over the course is:

    A] 40 sec   B] 47 sec   C] 33 sec   D] None of these

10. A can run 22.5 m while B runs 25 m. In a kilometer race B beats A by:

    A] 100 m   B] 1000/9m   C] 25 m   D] 50 m

11. In a 300 m race A beats B by 22.5 m or 6 seconds. B's time over the course is:

    A] 86 sec   B] 80 sec   C] 76 sec   D] None of these

12. In a 100 m race, A can beat B by 25 m and B can beat C by 4 m. In the same race, A can beat C by:

    A] 21 m   B] 26 m   C] 28 m   D] 29 m

13. A runs $1\frac{2}{3}$ times as fast as B. If A gives B a start of 80 m, how far must the winning post be so that A and B might reach it at the same time?

    A] 200 m   B] 300 m   C] 270 m   D] 160 m

14. In a game of 100 points, A can give B 20 points and C 28 points. Then, B can give C:

    A] 8 points   B] 10 points   C] 14 points   D] 40 points

15. A and B run a km race. If A gives B a start of 50 m, A wins by 14 sec and if A gives B a start of 22 sec, B wins by 20 m. The time taken by A to run a km is

    A] 125 sec   B] 120 sec   C] 105 sec   D] 100 sec

16. A can run a kilometer in 4 min 54 sec and B in 5 min. How many meters start can A give B in a km race so that the race may end in a dead heat?

    A] 25 m   B] 20 m   C] 15 m   D] 10 m

17. A runs $1\frac{1}{3}$ as fast as B. If A gives B a start of 30 meters. How far must be the wining post, so that the race ends in a dead heat?

    A] 100 m   B] 110 m   C] 140 m   D] 120 m

18. A can run 15 meters while B runs 20 meters. In a km race B beats A by

    A] 200 meters   B] 100 meters   C] 220 meters   D] 250 meters

19. A beats B by 125 m in a kilometer race. Find the B's speed in m/s if A's speed is 16 m/s

A] 12 B] 18 C] 10 D] 14

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

A] 20 B] 18 C] 19 D] None

[LEVEL – EXPERT]

1. A is 2 1⁄3 times as fast as B. If A gives B a start of 80 m, how long should the race course be so that both of them reach at the same time?

   A] 170 meter   B] 150 meter   C] 140 meter   D] 160 meter

2. A can run 224 meter in 28 seconds and B in 32 seconds. By what distance A beat B?

   A] 36 meter   B] 24 meter   C] 32 meter   D] 28 meter

3. At a game of billiards, A can give B 15 points in 60 and A can give C to 20 points in 60. How many points can B give C in a game of 90?

   A] 22 points   B] 20 points   C] 12 points   D] 10 points

4. A, B and C are the three contestants in one km race. If A can give B a start of 40 meters and A can give C a start of 64 meters. How many meters start can B give C?

   A] None of these   B] 20 m   C] 25 m   D] 35 m

5. In a game of 90 points A can give B 15 points and C 30 points. How many points can B give C in a game of 100 points?

   A] 140   B] 20   C] 300   D] 50

6. In a 100 meters race. A runs at a speed of 2 meters per seconds. If A gives B a start of 4 meters and still beats him by 10 seconds, find the speed of B.

   A] 1.6 m/sec.   B] 4 m/sec.   C] 2.6 m/sec.   D] 1 m/sec.

7. P runs 1 km in 3 minutes and Q in 4 minutes 10 secs. How many meters start can P give Q in 1 kilometer race, so that the race may end in a dead heat?

   A] 210 meter   B] 180 meter   C] 220 meter   D] 280 meter

8. A runs 1 3⁄8 times as fast as B. If A gives B a start of 90 m and they reach the goal at the same time. The goal is at a distance of

   A] 330 m   B] 440 m   C] 120 m   D] 280 m

9. Two boys A and B run at 4 1⁄5 and 8 km an hour respectively. A having 150 m start and the course being 1 km, B wins by a distance of

   A] 325 m   B] 60 m   C] 120 m   D] 275 m

10. In a 100 meters race, A can beat B by 10 meters and B can beat C by 5 meters. In the same race, A can beat C by

    A] 14.5 meter   B] 14 meter   C] 15.5 meter   D] 15 meter

11. X, Y and Z are the three contestants in one km race. If X can give Y a start of 52 meters and X can also give Z a start of 83 meters, how many meters start Y can give Z?

    A] 33.3 m   B] 33 m   C] 32 m   D] 32.7 m

12. In a race of 600 m. A can beat B by 60 m and in a race of 500 m. B can beat C by 50 m. By how many meters will A beat C in a race of 400 m?

    A] 76 meter   B] 74 meter   C] 72 meter   D] 78 meter

13. A can run 220 meters in 41 seconds and B in 44 seconds. By how many seconds will B win if he has 30 meters start?

    A] 8 sec   B] 4 sec   C] 2.5 sec   D] 3 sec

14. In one km race A beats B by 4 seconds or 40 meters. How long does B take to run the kilometer?

    A] 112 sec   B] 110 sec   C] 101 sec   D] 100 sec

15. In a game, A can give B 20 points, A can give C 32 points and B can give C 15 points. How many points make the game?

   A] 120 points   B] 90 points   C] 80 points   D] 100 points

16. In a game A can give B 20 points in 60 and C 18 points in 90. How many points can C give B in a game of 120?

   A] 20 points   B] 22 points   C] 18 points   D] 40 points

17. In a km race A can beat B by 100 m and B can beat C by 60 m. In the same race A can beat C by

   A] 144 m   B] 164 m   C] 144 m   D] 154 m

18. In a flat race, A beats B by 15 meters and C by 29 meters. When B and C run over the course together, B wins by 15 meters. Find the length of the course

   A] 225 m   B] 125 m   C] 220 m   D] 256 m

19. In a race, P beats Q by 20 sec. and Q beats R by 30 sec. By how many seconds did P beats R

   A] 10   B] 50   C] 24   D] 28

20. In a circular race along a track of length of 3600 m, A and B start from the same point and at the same time with the speed of 36 kmph and 45 kmph in the same direction. Find when they meet for the first time

   A] 1200 sec   B] 1440 sec   C] 1600 sec   D] 1000 sec

21. In a circular race along a track of length of 3600 m, A and B start from the same point and at the same time with the speed of 27 kmph and 36 kmph in the same direction. Find when they meet for the first time at the starting point

   A] 1200 sec   B] 1440 sec   C] 1600 sec   D] 1000 sec

22. In a circular race along a track of length of 3600 m, A and B start from the same point and at the same time with the speed of 36 kmph and 45 kmph in the opposite direction. Find when they meet for the first time

   A] 120 sec   B] 144 sec   C] 160 sec   D] 100 sec

23. In a circular race along a track of length of 3600 m, A and B start from the same point and at the same time with the speed of 36 kmph and 27 kmph in the opposite direction. Find when they meet for the first time at the starting point.

   A] 1200sec   B] 1440 sec   C] 1600 sec   D] 1000 sec

24. Three cyclists start cycling from same point in circular track of 900 m in same direction with the speed of 10 m/s, 20 m/s and 15 m/s respectively. How long will they take to meetfor first time?

   A] 90 sec   B] 180 sec   C] 360 sec   D] 45 sec

25 In question 24 how long will the cyclist take to meet at the starting point first time?

   A] 45 sec   B] 90 sec   C] 180 sec   D] 360 sec

Trains

[LEVEL – BEGINNER]

Directions: Mark against the correct answer:

1. In what time will a train 100 meters long cross an electric pole, if its speed be 144 km/hr?

   A] 2.5 seconds   B] 4.25 seconds   C] 5 seconds   D] 12.5 seconds

2. A train 280 m long, running with a speed of 63 km/hr will pass a tree in:

    A] 15 sec   B] 16 sec   C] 18 sec   D] 20 sec

3. How long does a train 110 meters long running at the speed of 72 km/hr take to cross a bridge 132 meters in length?

    A] 9.8 sec   B] 12.1 sec   C] 12.42 sec   D] 14.3 sec

4. A train 360 m long in running at a speed of 45 km/hr. In what time will it pass a bridge 140 m long?

    A] 40 sec   B] 42 sec   C] 45 sec   D] 48 sec

5. A 75 m long train is running at 54 km/hr. In how much time will it cross an electric pole?

    A] 10 s   B] 5 s   C] 15 s   D] 20 s

6   A 415 m long train is running at 63 km/hr. In how much time will it cross a tunnel 285 m long ?

    A] 25 s   B]   40 s   C]   50 s   D] 30 s

7. A 400 m long train cross a 200 m long platform in 30 second, the train speed is:

    A] 36 km/hr   B] 90 km/hr   C] 72 km/hr   D] 54 km/hr

8. A train travelling at a speed of 75 mph enters a tunnel $3\frac{1}{2}$ miles long. The train $\frac{1}{4}$ mile long. How long does it take for the train to pass through the tunnel from the moment the front enters to the moment the rear emerge?

    A] 2.5 min   B] 3 min   C] 3.2 min   D] 3.5 min

9. A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?

    A] 120 meters   B] 180 meters   C] Can't be determined   D] None of these

10. A train 132 m long passes a telegraph pole in 6 seconds. Find the speed of the train.

    A] 70 km/hr   B] 72 km/hr   C] 79.2 km/hr   D] 80 km/hr

11. A train covers a distance of 12 km in 10 minutes. If it takes 6 seconds to pass a telegraph post, then the length of the train is:

    A] 90 m   B] 100 m   C] 120 m   D] 140 m

12. A train 240 m long passed a pole in 24 seconds. How long will it take to pass a platform 650 m long?

    A] 65 sec   B] 89 sec   C] 100 sec   D] 150 sec

13. The length of the bridge, which a train 130 meters 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

14. A train 800 meters long is running at a speed of 78 km/hr. If it crosses a tunnel in 1 minute, then the length of the tunnel (in meters) is:

    A] 130   B] 360   C] 500   D] 540

15. A good train runs at the speed of 72 kmph and crosses a 250 m long platform in 26 seconds. What is the length of the goods train?

    A] 230 m   B] 240 m   C] 260 m   D] 270 m

16. The length of a train and that a platform are equal. If with a speed of 90 km/hr, the train crosses the platform in one minute, then the length of the train (in meters) is:

    A] 500   B] 600   C] 750   D] 900

17. A train of length 150 meters takes 40.5 seconds to cross a tunnel of length 300 meters. What is the speed of the train in km/hr?

A] 13.33	B] 26.67	C] 40	D] 66.67

18. A train crosses a platform 100 m long in 60 seconds at a speed of 45 km/hr. The time taken by the train to cross an electric pole is:

A] 8 sec	B] 52 sec	C] 1 minute	D] Data inadequate

19. 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?

A] 120 m	B] 240 m	C] 300 m	D] None of these

20. A 300 meter long train crosses a platform in 39 seconds while it crosses a signal pole in 18 seconds. What is the length of the platform?

A] 320 m	B] 350 m	C] Data inadequate	D] None of these

21. A train speeds past a pole in 15 seconds and a platform 100 m long in 25 seconds. Its length is:

A] 50 m	B] 150 m	C] 200 m	D] Data inadequate

22. A train moves a past a telegraph post and a bridge 264 m long in 8 seconds and 20 seconds respectively. What is the speed of the train?

A] 69.5 km/hr	B] 70 km/hr	C] 79 km/hr	D] 79.2 km/hr

23. A train takes 18 seconds to pass completely through a station 162 m long and 15 seconds through another station 120 m long. The length of the train is:

A] 70 m	B] 80 m	C] 90 m	D] 100 m

24. How many seconds will a 500 meter long train take to cross a man walking with a speed of 3 km/hr in the direction of the moving train if the speed of the train is 63 km/hr?

A] 25	B] 30	C] 40	D] 45

25. A jogger running at 9 kmph alongside a railway track is 240 meters ahead of the engine of a 120 meter long train running at 45 kmph in the same direction. In how much time will the train pass the jogger?

A] 3.6 sec	B] 18 sec	C] 36 sec	D] 72 sec

26. A train 110 meters long in running with a speed of 60 kmph. In what time will it pass a man who is running at 6 kmph in the direction opposite to that in which the train is going?

A] 5 sec	B] 6 sec	C] 7 sec	D] 10 sec

27. Two trains 200 m and 150 m long are running on parallel rails at the rate of 40 kmph and 45 kmph respectively. In how much time will they cross each other, if they are running in the same direction?

A] 72 sec	B] 132 sec	C] 192 sec	D] 252 sec

28. Two tains are running in opposite directions with the same speed. If the length of each train is 120 metres and they cross each other in 12 seconds, then the speed of each train (in km/hr) is:

A] 12	B] 24	C] 36	D] 48

29. 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:

A] 36	B] 45	C] 48	D] 49

30. A train 125 m long passes a man, running at 5 kmph 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

[LEVEL – EXPERT]

1. Jatin runs a marathon of a km b hours. If he walks at a speed that is 50% of the speed at which he runs, then the time that he would take to walk 200 m is.

A] ab/200 hours   B] 100b/a hours   C] 2b/5a hours   D] a/5b hours

2.   A train takes 10 seconds to cross a man standing on platform and 44 seconds to cross the platform. What is the length of the platform if the speed of the train is 72 km/h?

      A] 440 m   B] 570 m   C] 680 m   D] None of these

3.   A walks a certain distance and rides back in 6 hours and 15 minutes. If he walks both ways he takes 7 hours and 45 minutes. If he rides both ways the time which he will take, will be

      A] 4 hours   B] 4.75 hours   C] 4.5 hours   D] 4.25 hours

4.   A hiker climbed a mountainous path at the rate of 2 miles per hour. Following the same path on his way down the mountain, the hiker had a rate of 4 miles per hours. The total time for his journey was 3 hours. What is the distance between the top and the bottom of the mountain?

      A] 4.5 miles   B] 4 miles   C] 8miles   D] 9 miles

5.   Asha goes to her friend Lata's house, stays there for some time and returns back. The average speed for the entire journey is 8 km/hr. If the time period for which Asha stays At Lata's house is ignored, her average speed for entire journey is 12km/hr. The average time Asha has stopped per hr at Lata's house is

      A] 20 mins   B] 30 min   C] 40 min   D] None of these

6.   A student reaches his school from his residence 10 minutes late if he walks at a speed of 5km/hr and reaches 15 min early if he walks at a speed of 8km/hr. Find distance between his school & his residence.

      A] 4.48 km   B] 6.6 km   C] 5.56 km   D] 8 km

7.   A train leaves Delhi at 6 a.m. and reaches Agra at 10 a.m. Another train leaves Agra at 8 a.m. and reaches Delhi at 1:00 p.m. At what time do both trains cross each other?

      A] 8.30 a.m.   B] 8.56 a.m.   C] 9.06 a.m.   D] 9.00 a.m.

8.   Two trains of length 300 m and 200 m, traveling a t 36 km/hr and 54 km/hr respectively, enter a two track tunnel 400 m simultaneously on different tracks and from opposite directions. After they have crossed each other, in how much time will tunnel be free of traffic?

      A] 20 second   B] 15 second   C] 30 second   D] 34 second

9.   A train starts from Delhi to Mumbai and another from Mumbai to Delhi. After meeting at Bhopal they take 16 hrs and 9 hours respectively to cover the remaining journey. If the speed of the train which heads towards Mumbai is 90 km/hr, find the speed of the other train.

      A] 67.5 km/hr   B] 80 km/hr   C] 90 km/hr   D] 120 km/hr

10.   A Police patrol party traveling at 60 km/h crossed and escaping thief traveling in the opposite direction at 48 km/h. The police party has to travel for a further 5 minutes before it can find a gap in the median where it can take a U turn and start chasing the thief. After how much time after the police party crosses the thief does it catch him?

      A] 25 minutes   B] 50 minutes   C] 15 minutes   D] 32 minutes

Directions for question 11 and 12: Answer the questions on the basis of the information given below.

Ram and Shyam run a race between points A and B, 5km apart. Ram starts at 9 a.m. from A at a speed of 5 km/hr, reaches B, and returns to A at the same speed. Shyam starts at 9.45 a.m. from A at a speed of 10 km/hr, reaches B and comes back to A at the same speed.

11.   At what time do Ram and Shyam first meet each others?

      A] 10 a.m.   B] 10.10 a.m.   C] 10.40 a.m.   D] 10.30 a.m.

12.   At what time does Shyam overtake Ram?

      A] 10.20 a.m.   B] 10.30 a.m.   C] 10.40 a.m.   D] 10.50 a.m.

13. A man can row 6 km/hr in still water and he finds that it takes him thrice as long to row up as to row down the river. The rate of stream is

A] 5 km/hr B] 7 km/hr C] 3km/hr D] 9 km/hr

14. Karan and Arjun run a 100-meter race, Where Karan beats Arjun 10 m. To do a favor to Arjun, Karan starts 10 m behind the starting line in a second 100 m race. They both run at their earlier speeds. Which of the following is true in connection with the second race?

A] Race ends in dead heat B] Arjun beats Karan by 1 m

C] Arjun beats Karan by 11 m D] Karan beats Arjun by 1 m

15. A train running at 36 kmph passes another train completely in 12 sec, which is half of its length, running in the opposite direction at 54 kmph. If it also passes a railway platform in 1.5 min, what is the length of the platform (in meters)?

A] 700 B] 860 C] 900 D] 1000

16. A man takes 5 hours to walk to a certain place and returns by car. He would have, however, gained 3 hours if he had completed his entire journey by car. How long would he have taken to walk both ways?

A] 6 hours B] 6.5 hours C] 7 hours D] 8 hour

17. A and B started swimming at the same time from deep end and shallow end of the pool respectively. They met form the first time 70 m from the deep end. they continued swimming and reached shallow end and deep end respectively. Each tool a rest of 1 minute and then started swimming towards deep end and shallow end respectively. This time they met 50 m from the shallow end. What is the length of the pool?

A] 160 m B] 210 m C] 110 m D] 250 m

Direction for questions 18 and 19:

Cities A and B are in different time zones. A is located 3000 km east of B. The table below describes the schedule of an airline operating non-stop flights between A and B. All the times indicated are local and

on the same day.	**Departure**		**Arrival**	
City	Time		City	Time
B	8.00 am		A	3.00 pm
A	4.00 pm		B	8.00 pm

Assume that planes cruise at the same speed in both directions. However, the effective speed is influenced by a steady wind blowing from east to west at 50 km per hour.

18. What is the time difference between A and B?

A] 1.5 hours B] 2 hours C] 2.5 hours D] 1 hour

19. What is the plane's cruising speed in km per hour?

A] 700 B] 550 C] 600 D] 500

20. There are three professional swimmers A, B and C who can swim at speed of 11 km/hr, 8 km/hr and v km/hr respectively. A and B move from P to Q whereas C from Q to P. Now, B starts from P and swims towards Q 50 km away. Speed of the current (from P to Q) is 2 km/hr. A and C start half an hour later than B. What should be the speed of C so that all three meet together?

A] 15km/hr B] 18 km/hr C] 27km/hr D] 19 km/hr

Directions for questions 21 and 22:

In a 250 m race, Radhika beats Geetika by 12.5 m; and Geetika beats Dhaavika by 25 m in a 300 m race.

21. By what distance will Radhika beat Dhaavika in a 400 m race?

   A] 37.5   B] 41 m   C] 51.7 m   D] 62.3 m

22. If Geetika runs 100 m in 12 seconds, by how much time will Dhaavika lose to Geetika in an 800 m race?

   A] 8.7 sec   B] 7.1 sec   C] 6.2 sec   D] 4.9 sec

Directions for questions 23 and 24: Answer the questions based on the following information. Both Salman and Vivek want to marry Aishwarya. Salman and Vivek are standing at point A of a circular track whereas Aishwarya is standing at point B which is diametrically opposite to point A. Salman and Aishwarya start running towards each other along the circular track and Vivek runs along the straight line AB and after reaching B he runs along the circular track in the direction of Aishwarya. All three start simultaneously and eventually they meet at the same point together . (No one completes the round.)
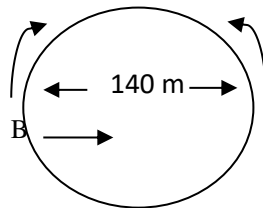
23. If the ration of speed of Salman and Vivek is 1:1, What is the distance travelled by Aishwarya till the meeting?

   A] 40 m   B] 60 m   C] 80 m   D] Data insufficient

24. If the ratio of speeds of Salman and Vivek is 1:2 and Aishwarya runs at a speed of 20 m/ sec, after how much time since start will all three meet?

   A] 2 sec   B] 3 sec   C] 4 sec   D] 5 sec

25. A train requires 7 sec. to pass a pole while it requires 25 sec to cross a stationary train which is 378 m. long. Find the speed of the train in kmph

   A] 75.6   B] 75.4   C] 76.2   D] 21

26. A train X starts from P at 4 p.m. and reaches Q at 5 p.m. while another train Y starts from Q at 4 p.m. and reaches P at 5:30 p.m. The two train will cross each other at

   A] 4:36 p.m.   B] 4:42 p.m.   C] 4:48 p.m.   D] 4:50 p.m.

27. Two trains running in opposite direction cross a man standing on platform in 27 and 17 sec respectively and they crosses each other in 23 sec. The ratio of their speed is

   A] 1:3   B] 3:2   C] 3:4   D] none

28. A man sitting in a train which is travelling @ 50kmph observes that a goods train, travelling in opposite direction, takes 9 sec to pass him. If the goods trains 280 m long, Find its speed in kmph

   A] 112   B] 72   C] 60   D] 62

29. A train leaves Muzaffarpur from Hazipur at 2:15 p.m. @ 50kmph. Another train leaves Hazipur for Muzaffarpur at 1:35 p.m.@ 60kmph. If the distance between two station is 590 km at what distance in km from Muzaffarpur will the two train meet?

   A] 200   B] 300   C] 250   D] 225

30. The metro service has a train going from Mumbai to Pune and Pune to Mumbai every hr, the first one at 6 a.m. The trip from one city to another takes 4 and half hours, and all trains travels at the same speed. How many trains will you pass while going from Mumbai to Pune if you start at 12 noon?

   A] 8   B] 9   C] 10   D] 13

Boats

[LEVEL – BEGINNER]

1. A boat goes 14 km upstream in 56 minutes. The speed of stream is 2 km/hr. The speed of boat in still water is

    A] 6 kmph   B] 7 kmph   C] 17 kmph   D] 8.5 kmph

2. The speed of a boat in stll water is 10 km/hr. If its speed downstream be 13 km/hr, then speed of the stream is:

    A] 1.5 kmph   B] 3 kmph   C] 5 kmph   D] 8.5 kmph

3. A man can row downstream at the rate of 14 km/hr and upstream at 5 km/hr. Find man's rate in still water.

    A] 9.5 kmph   B] 8 kmph   C] 9 kmph   D] 5 kmph

4. A man row upstream 16 km and downstream 27 km taking 5 hours each time. What is the velocity of current?

    A] 2 kmph   B] 2.1 kmph   C] 1.1 kmph   D] 8 kmph

5. A man can row 4.5 km/hr in still water and he finds that it takes him twice as long to row up as to row down the river. Find the rate of stream.

    A] 6 kmph   B] 1.5 kmph   C] 2.5kmph   D] 3.5 kmph

6. The speed of a boat in still water is 15 km/hr and the rate of current is 3 km/hr. The distance traveled downsream in 12 minutes is

    A] 3.6 km   B] 2.4 km   C] 1.2 km   D] 5 km

7. The current of stream runs at 1 kmph. A motor boat goes 35 km up stream and back again to the starting point in 12 hours. The speed of the motor boat is?

    A] 6 kmph   B] 7 kmph   C] 9 kmph   D] 8.5 kmph

8. A man can row 5 kmph in still water. If the the river is running at 1 kmph, it takes him 75 minutes to row to a place and back. How far is the place?

    A] 3 km   B] 2.5 km   C] 4 km   D] 8.5 km

9. A man can row upstream at 7 kmph and downstream at 10 kmph. Find man's rate water and rate of current?

    A] 2.5, 1.5 kmph   B] 8.5, 1.5 kmph   C] 3, 2.5 kmph   D] 3.5, 2.5 kmph

10. A man can row $9\frac{1}{3}$ kmph in still water and he finds that it takes him thrice as much time to row up than as to row down the same distance in river. The speed of the current is?

    A] 5 kmph   B] $4\frac{2}{3}$ kmph   C] 5 ¼ kmph   D] 4 ¼ kmph

11. A boat travels upstream from B to A and down strean from A to B in 3 hours. If the speed of boat in still is 9 kmph and the speed of the current is 3 kmph, the distance between A and B is?

    A] 10 km   B] 12 km   C] 11 km   D] 13 km.

12. A man row upstream at 8 kmph and downstream at 13 kmph. The speed of the stream is?

    A] 5 kmph   B] 2.5 kmph   C] 10.5 kmph   D] 4.2 kmph

13. A man rows 13 km upstream in 5 hours and also 28 km downstream in 5 hours. The velocity of the stream is.

A] 1.5 kmph   B] 2 kmph   C] 2.5 kmph   D] 3 kmph

14. The current of a streams runs at 1 kmph . A motor boat goes 35 km upstream and back again to the starting point in 12 hours. The speed of the motor boat in the still water is?

A] 6 kmph   B] 7 kmph   C] 9 kmph   D] 8 kmph

15. A man can row a boat at 10 kmph in still water. If the speed of the stream is 6 kmph the time taken to a row distance of 80 km down the stream is?

A] 8 hours   B] 5 hours   C] 10 hours   D] 20 hours

16. If a man rows at 6 kmph in still water and 4.5 km against the current, then his along the current is?

A] 7.5 kmph   B] 6 km   C] 8 km   D] 9 km

17. In one hour, a boat goes 11km along stream & 5km against the stream. The speed of boat in still water in kmph is:

A] 3   B] 5   C] 8   D] 9

18. A man rows downstream 32km & 14km upstream. If he takes 6 hr to cover each distance. The the velocity of current is:

A] 0.5 kmph   B] 1 kmph   C] 1.5 kmph   D] 2 kmph

19. A boat running downstream covers a distance of 16km in 2 hr & upstream in 4 hr. What is the speed of boat in still water

A] 4 kmph   B] 6 kmph   C] 8 kmph   D] 10 kmph

20. A boatman goes 2 km against the current in 1 hr & goes 1 km along the current in 10 min. How long will it take to go 5km in still water?

A] 40min   B] 60min   C] 75min   D] 90min

21. A man takes twice as long to row a distance against the stream as to row the same distance in favour of stream. The ratio of speed of boat in still water and the steam is:

A] 2:1   B] 3:1   C] 2:3   D] 3:2

22. A boat running upstream takes 8 hr 48 min to cover a certain distance, while it takes 4 hrs to cover the same distance running downstream. What is the ratio b/w speed of boat & speed of water current?

A] 2:1   B] 3:2   C] 8:3   D] None

23. If a boat goes 7km upstream in 42 min & speed of stream is 3kmph. Then what is the speed of boat in still water?

A] 4.2 kmph   B] 9 kmph   C] 13 kmph   D] 21 kmph

24. A man can row at 5 kmph in still water. If the velocity of current is 1 kmph& it takes him 1 hr to row to a place & come back, how far is the place

A] 2.4 km   B] 2.5 km   C] 3 km   D] 3.6 km

25. A boat takes 19 hr to travel downstream from A to B & coming back to C, mid-way b/w A & B. If the velocity of stream is 4 kmph& speed of boat in still water is 14 kmph. What is the distance b/w A & B?

A] 160 km   B] 180 km   C] 220 km   D] 120 km

26. A man can row a certain distance against the stream in 6 hours. However he would take 2 hours less to cover the same distance with current. If the speed of current is 2 kmph, what is rowing speed in still water?

A] 10 kmph   B] 12 kmph   C] 8 kmph   D] 14 kmph

27. Speed of a boat in standing water is 14 kmph and the speed of the stream is 1.2 kmph. A man rows to a place at a distance of 4864 km and comes back to the starting point. The total time taken by him is:

   A] 700 hours   B] 350 hours   C] 1400 hours   D] 1010 hours

28. A boatman can row 3 km against the stream in 20 minutes and return in 18 minutes. Find the rate of current

   A] 1⁄2 km/hr   B] 1 km/hr   C] 1⁄3 km/hr   D] 2⁄3 km/hr

29. A boat can travel with a speed of 13 km/hr in still water. If the speed of the stream is 4 km/hr, find the time taken by the boat to go 68 km downstream.

   A] 2 hours   B] 3 hours   C] 4 hours   D] 5 hours

30. A man's speed with the current is 15 km/hr and the speed of the current is 2.5 km/hr. The man's speed against the current is:

   A] 8.5 km/hr   B] 9 km/hr   C] 10 km/hr   D] 12.5 km/hr

[LEVEL – EXPERT]

1. A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between the speed of the boat and speed of the water current respectively?

   A] 2 : 1   B] 3 : 2   C] 8 : 3   D]   Cannot   be determined

2. A motorboat, whose speed in 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] 4   B] 5   C] 6   D] 10

3. In one hour, a boat goes 11 km/hr along the stream and 5 km/hr against the stream. The speed of the boat in still water (in km/hr) is:

   A] 3 km/hr   B] 5 km/hr

   C] 8 km/hr   D] 9 km/hr

4. The speed of a boat in still water in 15 km/hr and the rate of current is 3 km/hr. The distance travelled downstream in 12 minutes is:

   A] 1.2 km   B] 1.8 km   C] 2.4 km   D] 3.6 km

5. A boat takes 90 minutes less to travel 36 miles downstream than to travel the same distance upstream. If the speed of the boat in still water is 10 mph, the speed of the stream is:

   A] 2 mph   B] 2.5 mph   C] 3 mph   D] 4 mph

6. A man can row at 5 kmph in still water. If the velocity of current is 1 kmph and it takes him 1 hour to row to a place and come back, how far is the place?

   A] 2.4 km   B] 2.5 km   C] 3 km   D] 3.6 km

7. A boat covers a certain distance downstream in 1 hour, while it comes back in $1\frac{1}{2}$ hours. If the speed of the stream be 3 kmph, what is the speed of the boat in still water?

   A] 12 kmph   B] 13 kmph   C] 14 kmph   D] 15 kmph

8. Speed of a boat in standing water is 9 kmph and the speed of the stream is 1.5 kmph. A man rows to a place at a distance of 105 km and comes back to the starting point. The total time taken by him is:

   A] 16 hours   B] 18 hours   C] 20 hours   D] 24 hours

9 A man rows to a place 48 km distant and come back in 14 hours. He finds that he can row 4 km with the stream in the same time as 3 km against the stream. The rate of the stream is:

   A] 1 km/hr   B] 1.5 km/hr   C] 2 km/hr   D] 2.5 km/hr

10. In a river flowing at 2 km/hr, a boat travels 32 km upstream and then returns downstream to the starting point. If its speed in still water be 6 km/hr, find the total journey time.

   A] 10 hours   B]12 hours   C] 14 hours   D] 16 hours

11. A boat covers a certain distance downstream in 4 hours but takes 6 hours to return upstream to the starting point. If the speed of the stream be 3 km/hr, find the speed of the boat in still water

   A] 15 km/hr   B] 12 km/hr   C] 13 km/hr   D] 14 km/hr

12. If a man rows at the rate of 5 kmph in still water and his rate against the current is 3 kmph, then the man's rate along the current is:

   A] 5 kmph   B] 7 kmph   C] 12 kmph   D] 8 kmph

13. A man can row 8 km/hr in still water. If the river is running at 3 km/hr, it takes 3 hours more in upstream than to go downstream for the same distance. How far is the place?

| A] 32.5 km | B] 25 km | C] 27.5 km | D] 22.5 km |

14. A man can row 4 kmph is still water. If the river is running at 2 kmph it takes 90 min to row to a place and back. How far is the place?

| A] 2 km | B] 4 km | C] 5 km | D] 2.25 km |

15. At his usual rowing rate, Rahul can travel 12 miles downstream in a certain river in 6 hours less than it takes him to travel the same distance upstream. But if he could double his usual rowing rate for his 24-mile round trip, the downstream 12 miles would then take only one hour less than the upstream 12 miles. What is the speed of the current in miles per hour?

| A] $2\frac{1}{3}$ mph | B] $1\frac{1}{3}$ mph | C] $1\frac{2}{3}$ mph | D] $2\frac{2}{3}$ mph |

16. A man can row 40 kmph in still water and the river is running at 10 kmph. If the man takes 1 hr to row to a place and back, how far is the place?

| A] 16.5 kmph | B] 12.15 kmph | C] 2.25 kmph | D] 18.75 kmph |

17. A boatman can row 96 km downstream in 8 hr. If the speed of the current is 4 km/hr, then find in what time will be able to cover 8 km upstream?

| A] 6 hr | B] 2 hr | C] 4 hr | D] 1 hr |

18. A boat takes 38 hours for travelling downstream from point A to point B and coming back to point C midway between A and B. If the velocity of the stream is 4 kmph and the speed of the boat in still water is 14 kmph, what is the distance between A and B?

| A] 240 km | B] 120 km | C] 360 km | D] 180 km |

19. Two ghats are located on a river bank and are 21 km apart. Leaving one of the ghats for the other, a motorboat returns to the first ghat in 270 minutes, spending 40 minutes in taking the passengers at the second ghat. Find the speed of the boat in still water if the speed of current is 2.5 kmph?

| A] 10.4 kmph | B] 12.5 kmph | C] 22.5 kmph | D] 11.5 kmph |

20. Two swimmers started simultaneously from the beach, one to the south and the other to the east. Two hours later, the distance between them turn out to be 100 km. find the speed of faster swimmer , knowing that the speed of one of them was 75% of the speed of other ?

| A] 30 kmph | B] 40 kmph | C] 45 kmph | D] 60 kmph |