Time, Speed and Distance

1. A train is moving at the speed of 80 km/hr. What is its speed in metres per second?
A) 22(2/9) m/s   B) 22 m/s   C) 21(1/9)m/sec   D) 21 m/s

2. A person travels from A to B 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) 60 km/hr   B)56 km/hr   C) 52 km/hr   D) 48 km/hr

3. A car covers four successive three km stretches at speeds of 10 km/hr,20 km/hr 30 km/hr and 60
km/hr respectively. Its average speed over this distance :
A) 10 km/hr   B) 20 km/hr C) 30 km/hr   D) 25 km/hr

4. A girl can swim 3 km/hr in still water. If the velocity of the stream be 2 km/hr the time taken by her
to swim to a place 10 km upstream and back is :
A) 8(1/3) hrs   B) 9(1/5) hr   C) 10 hrs   D) 12 hrs

5. If the wheel of a bicycle makes 560 revolutions in travelling 1.1 km, what is its radius?
A) 31.25 cm   B) 37.75 cm   C)35.15 cm   D) 11.25 cm

6. A man in a train notices that he can count 21 telephone posts in one minute. If they are known to
be 50metres apart, at what speed is the train travelling?
A) 61 km/hr   B) 56 km/hr   C) 63 km/hr   D) 60 km/hr

7. A person has to cover a distance of 66 km in 45 minutes. If he covers one-half of the distance in two-
thirds of the total time, to cover the remaining distance in the remaining time, what should be his speed
in km/hr?
A) 14 km/hr   B) 12 km/hr   C) 10 km/hr   D) 8 km/hr

8. A thief is noticed by a policeman from a distance of 200 m. The thief starts running and the
policeman chases him. The thief and the policeman run at the rate of 10 km and 11 km per hour
respectively. What is the distance between them after 6 minutes?
A) 100 m   B) 150 m   C) 190 m   D) 200 m

9. Arun is travelling on his cycle and will reach point A at 2 pm 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 pm?
A) 8 kmph   B) 10 kmph   C) 12 kmph   D) 14 kmph

10. 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) 4   B) 6   C) 8   D) None of these

11. Water flows into a reservoir which is 200 m long and 150 m wide, through a pipe of cross-section
(0.3m x 0.2m) at 20 kmph. In what time will the water level be 8m ?
A) 100hrs   B) 150 hrs   C) 175 hrs   D) 200 hrs

12. A hare makes 9 leaps in the same time as a dog makes 5. But the dog's leap is 2m while hare's is
only 1 m. How many leaps will the dog have to make before catching up with the hare if the hare has a
head start of 16 m?
A) 42   B) 56   C) 80   D) 98

13. Train A took 35 minute to cover a distance of 50 km. If the speed of train B is 25% faster than train A, it will cover the same distance in:

A) 10 min   B) 20 min   C) 30 min   D) 28 min

14. A motor covers 24 km upstream and 36 km downstream in 6 hours, while it covers 36 km upstream and 24km downstream in 6(1/2) hours. The velocity of the stream is :

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

15. 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 trace 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

16. A, B and C run around a circular track of length 1200 m with respective speeds 9, 18, 27 kmph. If they started at the same time from the same point and run in the same direction when will they meet for the first time?

A) 360 sec   B) 480 sec   C) 240 sec   D) None

17. Two trains are running in opposite directions with speed of 62 kmph and 40 kmph respectively. If the length of one train is 250 metres and they cross each other in 18 seconds, the length of the other train is :

A) 145 metres B) 230 metres C) 260 metres D) Can not be determined

18. A train 270 metres long is moving at a speed of 25 kmph. It will cross a man coming from the opposite direction at a speed of 2 km per hour in :

A) 36 seconds   B) 32 seconds   C) 28 seconds D) 24 seconds

19. Ramesh travels 760 km 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

20. A ship develops a leak 12 km from the shore. Despite the leak, the ship is able to move towards the shore at a speed of 8 km/hr. However, the ship can stay afloat only for 20 minutes. If a rescue vessel were to leave from the shore towards the ship and it takes 4 minutes to evacuate the crew and passengers of the ship, what should be the minimum speed of the rescue vessel in order to be able to successfully rescue the people aboard the ship?

A)53 km/hr   B)37 km/hr C)28 km/hr   D)44 km/hr

21. Twenty six men - 1,2,3,....25 and 26 participate in 10km running race on a circular track of length 100m. All of them start at the same time, from the same point and run in the same direction. Their speeds, taken in the order, are in increasing AP. The time taken by 26 to meet 1, for the first time after they start is 20 sec and the time taken by 13 to complete the race is 52 minutes and 5 seconds. Find the time taken (in seconds), for all the twenty six men to meet for the first time at the starting point.

A) 1000   B) 500   C) 625   D)400