Q1. Three runners A, B and C run a race, with runner A finshing 12 meters ahead of runner B and 18 meters ahead of runner C, in another race of same type runner B finished 8 meters ahead of runner C. Each runner travels the entire distance at a constant speed. The length of the, race is
(a) 36 metres
(b) 48 metres
(c) 60 metres
(d) 72 metres

Q2. A square playground measure 1127. 6164 sq. m. If a man walks $2\frac{9}{20}$ m a minute, the time taken by him to walk one round around it is approximately.
(a) 50.82 min
(b) 54.82 min
(c) 54.62 min
(d) 50.62 min

Q3. A and B are 15 km apart and when travelling towards each other meet after half an hour where as they meet two and half hours later if they travel in the same direction. The faster of the two travels at the speed on
(a) 15 km
(b) 18 km
(c) 10 km
(d) 8 km

Q4. Rubi goes to a multiplex at the speed of 3 km/hr to see a movie and reaches 5 minutes late. If she travels at the speed of 4 km/hr she reaches 5 minutes early, Then the distance of the multiplex from her starting point is
(a) 2 km
(b) 5 km
(c) 2 m
(d) 5 m

Q5. A man travels 450 km to his home partly by train and partly by car. He takes 8 hrs 40 min 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

Q6. A car moving in the morning fog passes a man walking at 4 km/h in the same direction the man can see the car for 3 minutes and visibility is upto a distance of 130 m. The speed of the car is :

(a) 10 km/hr

(b) 6.6 km/hr

(c) 7 km/hr

(d) 5 km/hr

Q7. A gun is fired at a distance of 1.7 km from Ram and he hears the sound after 25 seconds. The speed of sound in meter per second is

(a) 60

(b) 62

(c) 64

(d) 68

Q8. The distance between two places A and B is 60 km. Two cars start at the same time from A and B, travelling at a speed of 35 km/h and 25 km/h respectively. If the cars run in the same direction, they will meet after (in hours)

(a) 6.5

(b) 6.3

(c) 6

(d) 6.52

Q9. The diameter of a cycle wheel is 140 cm. The cyclist takes 30 hours to reach his destination at the speed of 22 kmph. How many revolutions will the cycle wheel make during his journey (assume $\pi = 22/7$)

(a) 1 lakh

(b) 2 lakh

(c) 3 lakh

(d) $1\frac{1}{2}$ lakh

Q10. Two trains each having a length of 160 meters moving in opposite direction crossed each other in 9 seconds. If one train crossed a 200 meter-long platform in 27 seconds, then the ratio of their speeds is:

(a) 3 : 4

(b) 3 : 5

(c) 5 : 8

(d) 2 : 3

Q11. A, B, C walk 1 km in 5 minute 8 minutes and 10 minute respectively, C starts walking from a point, C starts walking from a point, at a certain time, B starts from the same point 1 minutes later and A starts from the same point 2 minutes later then C. then A meets B and C after.

(a) $\frac{5}{3}$ min

(b) 1 min

(c) 2 min

(d) $\frac{4}{3}$ min

Q12. In a race of one kilometer. A gives B a start of 100 metres and still wins by 20 seconds. But if A gives B a start by 25 seconds, B wins by 50 meters of 25 seconds, B wins by 50 meters. The time taken by A to run one kilometer is

(a) 17 sec.

(b) $\frac{500}{29}$ sec.

(c) $\frac{1200}{29}$ sec

(d) $\frac{700}{29}$ sec

Q13. Ravi travels 300 km partly by train and partly by car. He takes 4 hours to reach. If he travels 60 km. by train and rest by car. He will take 10 minutes more if he were to travels 100 km by train and rest by car. The speed of the train is;

(a) 50 km/hr

(b) 60 km/hr

(c) 100 km/hr

(d) 120 km/hr

Q14. Ravi and Ajay start simultaneously from a place A towards B, 60 km apart. Ravi's speed is 4 km/hr less than that of Ajay after reaching B, Ajay turns back and meet Ravi at a place 12 km away from B, Ravi's speed is

(a) 12 km/hr

(b) 10 km/hr

(c) 8 km/hr

(d) 6 km/hr

Q15. Two trains started at the same time, one from A to B and the other from B to A, If they arrived at B and A respectively 4 hours and 9 hours after they passed each other, the ratio of the speeds of the two trains was

(a) 2 : 1

(b) 3 : 2

(c) 4 : 3

(d) 5 : 4

Q16. Two trains starts from station A and B and travel towards each other at speed of 50 km/hr and 60 km/hr respectively. At the time of their meeting, the second train has travelled 120 km more than the first. The distance between A and B is:
(a) 990 km
(b) 1200 km
(c) 1320 km
(d) 1440 km

Q17. A man walks a certain distance in certain time, if he had gone 3 km per hour faster, he would have taken 1 hour less than the scheduled time, If he had gone 2 km per hour slower, he would have taken one hour longer on the road. The distance (in km) is:
(a) 60
(b) 45
(c) 65
(d) 80

Q18. A person started his journey in the morning. At 11 a.m. he covered $\frac{3}{8}$ of the journey and on the same day at 4.30 p.m. he covered $\frac{5}{6}$ of the journey. He started his journey at
(a) 6:00 a.m.
(b) 3:30 a.m.
(c) 7:00 a.m.
(d) 6:30 a.m.

Q19. A train starts from A at 7 a.m. towards B with speed 50 km/h. Another train starts from B at 8 a.m. with speed 60 km/h towards A. Both of them meet at 10 a.m. at C. The ratio of the distance AC to BC is
(a) 5 : 6
(b) 5 : 4
(c) 6 : 5
(d) 4 : 5

Q20. In covering a certain distance, the speed of A and B are in the ratio of 3 : 4. A takes 30 minutes more than B to reach the destination. The time taken by A to reach the destination is :
(a) 1 hour
(b) $1\frac{1}{2}$ hour
(c) 2 hour
(d) $2\frac{1}{2}$ hour

Q22. A boat went down the river for a distance of 20 km. It then turned back and returned to it starting point, having travelled a total of 7 hours. On its return trip, at a distance of 12 km from the starting point, it encountered a log, which had passed the starting point at the moment at which the boat had started downstream. The downstream speed of the boat is?
(a) 7 kmph
(b) 13 kmph
(c) 16 kmph
(d) 10 kmph

Q23. Sohan and Lallan left their house simultaneously. Thirty six minutes later, Sohan met his uncle travelling to their house, while Lallan met the uncle twelve minutes after Sohan. Twenty four minutes after his meeting with Lallan, the uncle rang the door bell at Sohan and Lallan's house. Assume each person travels at a constant speed. Find the ratio of the speeds of Sohan to Lallan to the uncle?
(a) 1 : 2 : 2
(b) 1 : 3 : 2
(c) 3 : 1 : 3
(d) 2 : 1 : 2

Q24. Two men together start a journey in the same direction. The travel 24 and 36 km per day respectively. After travelling of 6 days the man at 24 km per day doubles his speed and both of them finish the journey in the same time. Find the number of days taken by them to reach the destination?
(a) 12
(b) 11
(c) 10
(d) 14

Q25. Bhallaldev drives a car at an average speed of 48 kmph and reach his destination in 6 hours. Bahubali covers that distance in 4 hours. If Bhallaldeva increased his speed by 8 kmph and Bahubali increases his average speed by 4 kmph, then what will be the difference in time taken by them to reach their destination?
(a) $1\frac{47}{133}$ hrs
(b) $1\frac{49}{133}$
(c) $1\frac{45}{133}$
(d) $2\frac{7}{13}$

Q26. Shyam's house, his office and his gym are all equidistant from each other. The distance between any 2 of them is 4 km. Shyam starts walking from his gym in a direction parallel to the road connecting his office and his house and stops when he reaches a point directly east of his office. He then reverses direction and walks till he reaches a point directly south of his office. The total distance walked by Shyam is?
(a) 6 km
(b) 9 km
(c) 16 km
(d) 12 km

Q27. Sanjay started his journey to a certain place from home at 7 a.m. by bike. After going a certain distance, the bike went out of order. Then he rested for 35 minutes and come back to house walking all the way and come back to home at 1 p.m. If the bike runs at 10 kmph and his walking speed is 1 km/hr, then the distance covered on bike is?

(a) $4\frac{61}{66}$km

(b) $4\frac{65}{66}$ km

(c) 5 km

(d) $4\frac{14}{19}$ km

Q28. Two motorists met at 10 am at the dadar station. After their meeting, one of them proceeded in the west direction while the other proceeded in the north direction. Exactly at noon, they were 60 km apart. Find the speed of the slower motorist if the difference of their speed is 6km/h?

(a) 28 km/h

(b) 18 km/h

(c) 15 km/h

(d) 20 km/h

Q29. A man travels 1200 km from A to B by air, train and ship. The distance travelled by ship is twice the distance travelled by train. The speed of the aircraft is twice the average speed of the man for the journey and the time he was on the ship was thrice the time he was on the train. If the man travels 10 h by train out of the total travel time of 50 h, then what is the total distance covered by the ship ?

(a) 720 km

(b) 630 km

(c) 480 km

(d) 570 km

Q30. A car driver, driving in a fog, passes a pedestrian who was walking at the rate of 2 km/hr in the same direction. The pedestrian could see the car for 6 minutes and it was visible to him up to a distance of 0.6 km. What was the speed of the car?

(a) 15 km/hr

(b) 30 km/hr

(c) 20 km/hr

(d) 8 km/hr