IPMAT/JIPMAT/IIM-B PYQ Practice
Sheet - 1: Time, Speed & Distance

Q1 (IIM-B (BBA-DBE) 2024 Slot 1): A train running between two towns arrives at its destination 10 minutes late when it goes at 60 km per hour and 16 minutes late when it goes at 40 km per hour. Determine the speed at which the train reaches on time.

(a) 100 km/h

(b) 360 km/h

(c) 90 km/h

(d) 240 km/h

Q2 (IIM-B (BBA-DBE) 2025): Nidhi reached her institute in 3 hours while travelling by bus with a wheel radius of 70 cm and making 250 revolutions in one minute. One day, she left for the institute one hour later than usual time. Then to reach her institute on time, she should increase her speed by ___. [Use π = 22/7]

(a) 98 km/hr

(b) 33 km/hr

(c) 68.5 km/hr

(d) 40 km/hr

Q3 (IIM-B (BBA-DBE) 2025): In a flight of 1400 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 450 km/h and the time of flight increased by 60 minutes. The speed of the aircraft due to bad weather is what percent (rounded off to 2 decimal places) of the original speed of the aircraft?

(a) 57.14%

(b) 43.33%

(c) 52.28%

(d) 60.67%

Q4 (IIM-B (BBA-DBE) 2025): The time taken by a boat to cover a certain distance in still water is 20% less than the time it takes to cover the same distance upstream. The speed of the stream is 4.5 km/h. How much total time (in hours) will the boat take to cover 60 km downstream and 30 km upstream?

(a) 4⅓

(b) 3_{89}

(c) 4№

(d) 3⅓

Q5 (BMSAT Kozhikode 2025): A train covered a certain distance at a uniform speed. If the train would have been 6 km/h faster, it would have taken 4 hrs less than the scheduled time. And, if the train were slower by 6 km/h, it would have taken 6 hrs more than the scheduled time. Find the distance covered by the train.

(a) 180 kms

(b) 360 kms

(c) 720 kms

(d) None of these

Q6 (BMSAT Kozhikode 2025): If a boat takes 4 hours longer to travel a distance of 45 km upstream than to travel the same distance downstream, then find the speed of the boat in still water if the speed of the stream is 2 km/hour.

(a) 7

(b) 14

(c) 10

(d) 9

Q7 (BMSAT Kozhikode 2025): A thief runs away from a police station with a uniform speed of 100m/minute. After 1 minute, a policeman runs behind the thief to catch him. He runs at a speed of 100m/min in the first minute and increases his speed by 10m/min in each succeeding minute. At the end of which minute, will the policeman be able to catch the thief?

(a) 6

(b) 7

(c) 9

(d) None of these

Q8 (Sample Paper): Yaseen was travelling from City A to City B. He travelled the first one-fifth of the distance at 10 km/h, and the next three-twentieth of the distance at 15 km/h. Of the remaining distance, he travelled one part at 20 km/h and the rest of the distance at 12 km/h. If the average speed of Yaseen for the entire trip was 16 km/h, what part of the entire trip did Yaseen cover at 20 km/h?

(a) 13/20

(b) 11/20

(c) 7/20

(d) 9/20

Q9 (IPMAT Indore 2019): Two small insects, which are x metres apart, take u minutes to pass each other when they are flying towards each other, and v minutes to meet each other when they are flying in the same direction. Then, the ratio of the speed of the slower insect to that of the faster insect is

(a) u/v

(b) u/(v − u)

(c) (v − u)/(v + u)

(d) u/(v + u)

Q10 (IPMAT Indore 2020): Two friends run a 3-kilometer race along a circular course of length 300 meters. If their speeds are in the ratio 3:2, the number of times the winner passes the other is _____.

Entered answer:

Q11 (IPMAT Indore 2021): A train left point A at 12 noon. Two hours later, another train started from point A in the same direction. It overtook the first train at 8 PM. It is known that the sum of the speeds of the two trains is 140 km/hr. Then, at what time would the second train overtake the first train, if instead the second train had started from point A in the same direction 5 hours after the first train? Assume that both the trains travel at constant speeds.

(a) 3 AM the next day

(b) 4 AM the next day

(c) 8 AM the next day

(d) 11 PM the same day

Q12 (IPMAT Indore 2022): When Geeta increases her speed from 12 km/hr to 20 km/hr, she takes one hour less than the usual time to cover the distance between her home and office. The distance between her home and office is _____ km.

Entered answer:

Q13 (IPMAT Indore 2022): In a 400-metre race, Ashok beats Bipin and Chandan respectively by 15 seconds and 25 seconds. If Ashok beats Bipin by 150 metres, by how many metres does Bipin beat Chandan in the race?

(a) 80

(b) 100

(c) 150

(d) 50

Q14 (IPMAT Indore 2023): Vinita drives a car which has four gears. The speed of the car in the fourth gear is five times its speed in the first gear. The car takes twice the time to travel a certain distance in the second gear as compared to the third gear. In a 100 km journey, if Vinita travels equal distances in each of the gears, she takes 585 minutes to complete the journey. Instead, if the distances covered in the first, second, third, and fourth gears are 4 km, 4 km, 32 km, and 60 km, respectively, then the total time taken, in minutes, to complete the journey, will be

Entered answer:

Q15 (IPMAT Indore 2023): A helicopter flies along the sides of a square field of side length 100 kms. The first side is covered at a speed of 100 kmph, and for each subsequent side the speed is increased by 100 kmph till it covers all the sides. The average speed of the helicopter is

(a) 250 kmph

(b) 184 kmph

(c) 192 kmph

(d) 200 kmph

Q16 (IPMAT Indore 2024): A boat goes 96 km upstream in 8 hours and covers the same distance moving downstream in 6 hours. On the next day it starts from point A, goes downstream for 1 hour, then upstream for 1 hour, and repeats this for four more times, that is, 5 upstream and 5 downstream journeys. Then the boat would be

(a) 22.5 km downstream of A

(b) 20 km downstream of A

(c) 15 km downstream of A

(d) 12.5 km downstream of A

Q17 (IPMAT Indore 2025): Two swimmers, Ankit and Bipul, start swimming from the opposite ends of a swimming pool at the same time. Ankit can cover the length of the pool once in 10 minutes. Bipul can cover the length of the pool once in 15 minutes. They swim back and forth for 80 minutes without stopping. The number of times they meet each other is

(a) 8

(b) 6

(c) 7

(d) 5

Answer Key

Time, Speed & Distance — Sheet 1

Q1:	(b)	**Q2:**	(b)	**Q3:**	(a)
Q4:	(a) 35/9 hrs	**Q5:**	(c)	**Q6:**	(a)
Q7:	(a) 6th min	**Q8:**	(a) 13/20	**Q9:**	(c)
Q10:	5	**Q11:**	(c)	**Q12:**	30
Q13:	(a)	**Q14:**	312 min	**Q15:**	(c)
Q16:	(b)	**Q17:**	(c)		

** Q1 TSD Sheet 2: calculated 46 kmph (not in options) — please verify against official key.*