

IPMAT/JIPMAT/IIM-B PYQ Practice Sheet 2: Time, Speed & Distance

IPMAT Rohtak 2019 - Data Interpretation (Time, Speed & Distance)

Directions: Study the following charts and table carefully to answer the questions that follow.

Total distance covered downstream = 2400 km	
Day	% Share
Sunday	12%
Monday	14%
Tuesday	18%
Wednesday	11%
Thursday	10%
Friday	17%
Saturday	18%

Total distance covered upstream = 4800 km	
Day	% Share
Sunday	20%
Monday	16%
Tuesday	18%
Wednesday	12%
Thursday	10%
Friday	14%
Saturday	10%

Speed of Stream by Day	
Day	Speed of stream (km/hr)
Monday	5
Tuesday	2
Wednesday	6
Thursday	-
Friday	1

Saturday	-
Sunday	3

Q1 (IPMAT Rohtak 2019): If the time taken by boat to travel upstream on Wednesday is $\frac{6}{7}$ times the time taken to travel downstream on Monday and the speed of boat in still water on Monday is 15 kmph, then find the speed of boat in still water on Wednesday? (Speed of boat in still water is different for different days)

- (a) 52 kmph
- (b) 62 kmph
- (c) 42 kmph
- (d) 48 kmph

Q2 (IPMAT Rohtak 2019): If the time taken by boat to travel upstream on Monday is $27\frac{1}{5}$ hrs more than the time taken by it to travel downstream on the same day, then find the speed of boat in still water on Monday? (speed of boat in still water is the same in upstream as in downstream)

- (a) 25 kmph
- (b) 18 kmph
- (c) 20 kmph
- (d) 15 kmph

Q3 (IPMAT Rohtak 2019): If the speed of boat in still water on Saturday was 27 km/hr and the speed of boat in still water on Wednesday was $66\frac{2}{3}\%$ more than that of Saturday and time taken to travel upstream on Wednesday is $\frac{16}{13}$ times than time taken by it to travel downstream on Saturday, then find the speed of stream (in kmph) on Saturday?

- (a) 2
- (b) 4
- (c) 9
- (d) 8

Q4 (IPMAT Rohtak 2019): The speed of boat in still water on Saturday was 21 km/hr, and that on Sunday was $28\frac{4}{7}\%$ more than that on Saturday. If the time taken by boat to travel upstream on Saturday is $2\frac{1}{2}$ times the time taken to travel downstream on Sunday, then find the time taken by the boat to cover a distance of 125 km upstream on Saturday?

- (a) 6 hrs 45 min
- (b) 2 hrs 45 min
- (c) 4 hrs 30 min
- (d) 6 hrs 15 min

Q5 (IPMAT Rohtak 2019): If the time taken by boat to travel upstream on Friday is 30 hours more than the time taken by it to travel downstream on Wednesday and the speed of boat in still water on Friday is 17 kmph, then find the upstream speed of boat on Wednesday? (speed of boat in still water is different on different days)

- (a) 27 kmph
- (b) 22 kmph
- (c) 20 kmph
- (d) 25 kmph

Q6 (IPMAT Rohtak 2019): Train A takes 45 minutes more than train B to travel 450 km. Due to engine trouble, the speed of train B falls by a quarter. So it takes 30 minutes more than Train A to complete the same journey. Find the speed of Train A.

- (a) 120 km/hr
- (b) 110 km/hr
- (c) 100 km/hr
- (d) 90 km/hr

Q7 (IPMAT Rohtak 2019): A boatman goes 2 km against the current of the stream in 1 hour and goes 1 km along the current in 10 minutes. How long will it take to go 5 km in stationary water?

- (a) 40 minutes
- (b) 1 hour
- (c) 1 hr 15 min
- (d) 1 hr 30 min

Q8 (IPMAT Rohtak 2020): In a 1000 meter race Rishi beats Koustab by 50 meters. In the same race, by what time margin Koustab beat Pandey who runs at 4 meter per second? (Since data is insufficient, this question was cancelled)

- (a) 100
- (b) 50
- (c) 75
- (d) 60

Q9 (IPMAT Rohtak 2020): Guru and Chela walk around a circular path of 115 km in circumference, they start together from the same point. If they walk at speed of 4 and 5 kmph respectively, also they walk in the same direction, when will they meet?

- (a) After 115 hours
- (b) After 125 hours
- (c) After 120 hours
- (d) After 210 hours

Q10 (JIPMAT 2021): A man rows 20 km upstream and back again to the starting point in 110 minutes. If the speed of the stream is 2 kmph, then the speed of rowing in still water is

- (a) 20 kmph
- (b) 22 kmph
- (c) 24 kmph
- (d) 28 kmph

Q11 (JIPMAT 2021): A train with 90 kmph crosses a bridge in 36 s. Another train 100 m shorter crosses the same bridge at 45 kmph. The time taken by the second train to cross the bridge will be

- (a) 60 s
- (b) 64 s
- (c) 68 s
- (d) 72 s

Q12 (JIPMAT 2021): A boy covers a certain distance on a toy train. If the train moved 4 kmph faster, it would take 30 minutes less. If it moved 2 kmph slower, it would have taken 20 minutes more. The distance is

- (a) 40 km
- (b) 50 km
- (c) 60 km
- (d) 80 km

Q13 (JIPMAT 2021): In a flat race, A beats B by 15 m and C by 29 m. When B and C run over the same course together, B wins by 15 m. The length of the course is

- (a) 250 m
- (b) 200 m
- (c) 225 m
- (d) 275 m

Q14 (JIPMAT 2022): Given below are two statements based on the following: A motor boat can travel 30 km upstream and 28 km downstream in 7 hours. It can travel 21 km upstream and return in 5 hours. Statement I: Speed of the boat in still water is 12 km per hour. Statement II: Speed of the stream is 4 km per hour. In the light of the above statements, choose the correct answer from the options given below:

- (a) Both Statement I and Statement II are true
- (b) Both Statement I and Statement II are false
- (c) Statement I is false but Statement II is true
- (d) Statement I is true but Statement II is false

Q15 (JIPMAT 2022): Two persons A and B start from the same point to travel from Chandigarh to Ambala. The distance between Chandigarh and Ambala is 60 km. Speed of A is 4 km/hr slower than B. B, when reaches Ambala, starts back via the same route without taking any rest and meets A who was still 12 km away from Ambala. Find the speed of A.

- (a) 4 km/hr
- (b) 8 km/hr
- (c) 12 km/hr
- (d) 14 km/hr

Q16 (JIPMAT 2023): Aman takes half the time in rowing a certain distance downstream than upstream. Statement (I): Ratio of the speed of the boat in still water to the speed of the water current is 2: 1. Statement (II): If the speed of the boat in still water is 6 km per hour, then the speed of the water current is 2 km per hour. Choose the most appropriate answer from the options given below.

- (a) Both Statement (I) and Statement (II) are true.
- (b) Both Statement (I) and Statement (II) are false.
- (c) Statement (I) is true but Statement (II) is false.
- (d) Statement (I) is false but Statement (II) is true.

Q17 (JIPMAT 2024): Ram and Shyam run a race between points A and B, 5 km apart. Ram starts at 9 AM from A at a speed of 5 km/hr, reaches B and returns to A at the same speed. Shyam starts at 9:45 AM from A at a speed of 10 km/hr, reaches B and comes back to A at the same speed. At what time do Ram and Shyam meet each other?

- (a) 10:00 AM

- (b) 10:10 AM
- (c) 10:20 AM
- (d) 10:30 AM

Q18 (JIPMAT 2024): Ram and Shyam run a race between points A and B, 5 km apart. Ram starts at 9 AM from A at a speed of 5 km/hr, reaches B and returns to A at the same speed. Shyam starts at 9:45 AM from A at a speed of 10 km/hr, reaches B and comes back to A at the same speed. At what time does Shyam overtake Ram?

- (a) 10:20 AM
- (b) 10:30 AM
- (c) 10:40 AM
- (d) 10:50 AM

Q19 (JIPMAT 2024): A person travels three equal distances at a speed of 'a' km/hr, 'b' km/hr and 'c' km/hr respectively. What is the average speed for the whole journey?

- (a) $abc / [3(ab+bc+ac)]$
- (b) $abc / (ab+bc+ac)$
- (c) $(ab+bc+ac) / abc$
- (d) $3abc / (ab+bc+ac)$



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Answer Key

Time, Speed & Distance — Sheet 2

Q1: (d) 48 kmph*

Q4: (d) 6 hrs 15 min

Q7: (c) 1 hr 15 min

Q10: (b) 22 kmph

Q13: (c) 225 m

Q16: (d)

Q19: (d)

Q2: (a) 25 kmph

Q5: (b) 22 kmph

Q8: Cancelled

Q11: (b) 64 s

Q14: (c)

Q17: (b) 10:10 AM

Q3: (c) 9

Q6: (c) 100

Q9: (a) 115 hrs

Q12: (c) 60 km

Q15: (b) 8 km/hr

Q18: (b) 10:30 AM



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