BOAT AND STREAM

Direction: Read the following questions carefully and choose the right answer.

1. Ratio between speed of boat in still water to speed of stream is 5 : 2. If 224 km is travelled by downstream in 4 hours then find the difference between speed of boat in still water and speed of stream?

A. 24 km/hr B. 22 km/hr C. 28 km/hr D. 26 km/hr E. 30 km/hr

2. If the upstream speed of a boat is 50% less than the downstream speed of the boat and if a object is thrown in the river it covers 100m in 50 sec, then how much distance boat can cover in still water in 5 hours?

A. 900 km B. 100 km C. 120 km D. 108 km E. 105 km

3. A steamer can go 12 km in still water in 25 minutes. One day, it went 11.25 km upstream and returned the same distance in downstream. If the difference between the time taken to travel upstream and downstream was 12.5 minutes, then what was the speed of stream in km per hour?

A. 7.2 B. 5.4 C. 6.3 D. 4.5 E. None of these

4. The ratio of speed of A and B in still water is 3 : 2. A and B start from the same point in the river, A goes upstream and B goes downstream. After 3 hours the stream stops flowing and A starts rowing in the opposite direction to meet B. How much time after the stream stops flowing does A meet B?

 A. 16 hrs
 B. 15 hrs
 C. 12 hrs
 D. 18 hrs
 E. None of these

5. A boat goes a certain distance upstream and comes back downstream to the starting point in 144 min. If the speed of the boat in still water becomes 66.67% of the original, time taken for the same journey will be 224 min. What is the ratio of the speed of boat in still water and speed of current?

A. 7 : 1 B. 6 : 1 C. 5 : 3 D. 7 : 2 E. None of these

6. The speed of current is 5 km/h. What will be the respective downstream speed and upstream speed of a boy rowing a boat, if one third of the distance covered going downstream in a certain time is equal to the distance covered going upstream in the same time.

A. 15 kmph, 5 kmph B. 20 kmph, 10kmph C. 18 kmph, 8 kmph D. 24 kmph, 14 kmph E. None of these

7. There are 3 points P, Q and R in a straight line, such that point Q is equidistant from points P and R. A man can swim from point P to R downstream in 24 hours and from Q to P upstream in 16 hours. Find the ratio of speed of man in still water to speed of stream?

A. 5 : 1 B. 6 : 1 C. 5 : 3 D. 7 : 1 E. None of these

8. Rohit can row a boat 65Km upstream and 130Km downstream in 23 hours, whereas he can swim 45Km upstream and 104Km downstream in 17 hours. Find the speed of boat in still water and the speed of stream.

A. 4km/h, 9km/h B. 8km/h, 5km/h C. 9km/h, 4km/h D. 5km/h, 8km/h E. 10km/h, 3km/h

9. If the ratio of the speed of a boat in upstream and the speed of the stream is 8 : 1. If the boat can travel 500 km downstream in 20 hours then find the total distance travelled by the boat in still water in the same time?

 A. 425 km
 B. 459 km
 C. 441 km
 D. 450 km
 E. None of these

10. The ratio of the time taken by a boat to go a certain distance upstream and return downstream halfway of the same distance is 18 : 5. If the speed of stream is 4km/h what is the distance covered by the boat in 6 hours in downstream and 8 hours in upstream?

A. 192 km B. 188 km C. 208 km D. 175 km E. None of these

11. Two boats A and B start from two points P and Q respectively in a river along the flow of river. Boat A has speed 10 kmph and goes downstream to reach Q while B has speed 12 kmph and goes upstream to reach P. If ratio of time A and B took is 5:6, find the ratio of time taken by A and B for the return trip.

A. 6:5 B. 7:4 C. 7:3 D. 8:5 E. 9:7

- 12. A boat goes 360 km upstream and returns to the same point in 35 hours. If the speed
of current is 3km/h, how much distance boat will cover in still water in 6 hours?A. 126 kmB. 144 kmC. 114 kmD. 132 kmE. None of these
- 13. Engine of a steamer is off and it is in the middle of a river at point P. It flows with river and reach to a point Q in an hour. The person in the steamer then starts the engine and travels it back to P in half an hour. Find the ratio of still water speed of the steamer and the stream speed of the river.

A. 3 : 1 B. 1 : 2 C. 1 : 3 D. 2 : 1 E. 2 : 3

14. The time taken by a boat to go a certain distance downstream is 33.33% less than that taken during upstream. If the still water speed of the boat decreases by 40%, it will take 2 hrs more to travel a distance of 30km. How much distance will it cover in 5hrs going downstream?

A. 36 km B. 48 km C. 60 km D. 45 km E. 72 km

15. A ferry takes 96 minutes to row to place P₂ from another place P₁ along the stream. The distance between place P₁ and place P₂ is 19.2 km. If the speed of the ferry in still water is four times more than that of the stream, then how much distance will the ferry cover in 5.2 hours against the stream?

A. 38.4 km B. 41.6 km C. 55.5 km D. 60 km E. None of these

16. Speed of the stream is 12 km/h and speed of boat in still water is 20 km/h. A boat takes a total of 36 hours for travelling downstream from Point X to Point Y and coming back to point Z which is midway of point X and Y. What is the distance between X and Y?

A. 384 km

17. In downstream, two steamers A and B start simultaneously from the point P but the steamer B reaches point Q, 2 hours before the steamer A reaches the same point. If the distance between point P and Q is 120 km and the speed of steamer B in upstream is 3 km per hour more than that of steamer B in upstream and the speed of stream is 2 km per hour, then find the sum of the speed of steamer A in still water and that of steamer B in still water?

A. 21 km per hour B. 20 km per hour C. 23 km per hour D. 27 km per hour E. None of these

18. Time taken by a boatman to travel (x + 40) km downstream and (x – 40) km upstream is 20 hours. The downstream speed is 50% more than the upstream speed. If boatman can travel (x + 40) km in 12 hours in still water, then find the value of x.

A. 140 B. 160 C. 180 D. 200 E. 240

19. The ratio of the speed of a boat in still water to the speed of stream is 7 : 3. Aman goes 40km upstream in 2 hrs. How much time will he take to go 70 km downstream and come back same distance upstream?

A. 4 hrs 45 min. B. 4 hrs. 55 min. C. 4 hrs. 54 min. D. 4 hrs. 40 min. E. None of these

- 20. Jay rows a boat 216 km upstream and rows same distance downstream in a total of 30 hrs without any break. The speed in downstream is 20% more than the speed of boat in still water and the speed in upstream is 66.67% of the downstream speed. What is the speed of boat in still water?

 A. 21 km/h
 B. 14 km/h
 C. 15 km/h
 D. 18 km/h
 E. None of these
- 21. A man sitting in a boat at point A at one end of river wants to go to the just opposite point B across the river. He starts rowing in the perpendicular direction of flow of river from point A to reach point B but because of the flow of river reaches a point C, which is somewhere to the right of point B. From point C he again starts rowing back to the opposite side in perpendicular direction of flow of river and reaches a point D. The distance between A and D is 42 m and speed of boat in still water and speed of current are in the ratio 7 : 3. What is the width of the river?

A. 84 m B. 42 m C. 49 m D. 77 m E. None of these

22. Boat A in still water with speed of 12 kmph starts from a fixed point in a river. After 12 minutes, boat B left the same point to catch boat-A. Both are moving in upstream direction and speed of stream is 2 kmph. Boat-B catches boat-A after chasing for 6 km. What is the Speed of boat-B?

A. 14 kmphB. 17 kmphC. 20 kmphD. 21 kmphE. None of these

23. A boat goes downstream and reaches a fixed point in a river in 40 minutes, turns back and again sails upstream to reach the starting point. The speed of stream is constant all the time and is 1/5 times the speed of the boat. By what percent the speed of the boat should be increased in upstream so that it takes same time to reach the starting point as it took in downstream?

24. A boat starts from a point, goes upstream to some distance and returns back downstream at its initial position in 4 hours such that the time taken for the upstream journey was 2 hours more than the downstream journey. What was the total distance it travelled if speed of the boat in still water was 4kmph?

A. 8 km B. 12 km C. 15 km D. 18 km E. None of these

25. Two boats A and B have speeds 10 kmph and 14 kmph respectively in still water. Boat A is at point-P and boat B is at point-Q in a river. They start moving simultaneously to meet each other at some point such that boat A is going downstream while B is going upstream. They meet at the mid point of P and Q after sailing for equal number of hour(s). Find the speed of the stream:

A. 2 kmph B. 4 kmph C. Data insufficient D. 6 kmph E. None of these

26. A boat goes upstream a distance 24 km and while returning to the initial point in the river it decreases its speed such that it took same time downstream that it took upstream. If the speed of stream was 3 kmph, then what was the difference of the boat's speed in still water when it was going upstream and downstream?

A. 3 kmph B. 8 kmph C. Data insufficient D. 6 kmph E. None of these

27. A motorboat goes 48 km of upstream and comes back to its starting point in 15 hrs. if the speed of the boat in still water is 66.66% more than that of the speed of the stream. If boat had travelled only in upstream for 15 hours then find how much distance it would have travelled?

A. 240 km B. 225 km C. 180 km D. 165 km E. None of these

28. The speed of boat downstream and upstream is 30 km/hr and 18 km/hr respectively. Time taken to travel a distance of (x + 40) km downstream and (y + 60) km upstream is 42 hours, and time taken to travel (x + 40) km upstream and (y + 60) km downstream is 38 hours. Find the time taken by the boat to travel a distance [(x+y)/2] km upstream with speed 100/3% more than the normal stream speed.

A. 16 hoursB. 21 hoursC. 25 hoursD. 30 hoursE. 36 hours

29. A boat goes 204 km upstream and 266 km downstream in 13 hrs, when the speed of stream is 2 km/h. What will be the distance (in km) covered by boat going downstream for 8 hrs when the speed of stream is 3 km/h?

A. 340 B. 336 C. 312 D. 296 E. None of these

30. Speed of the boat in still water is 8 kmph and speed of the stream is 2 kmph. The boat is rowing in downstream after travelling a certain distance, the speed of the stream increases by 2 kmph, and hence the boat reaches the destination earlier by 10 minutes. If the distance that the boat covered is 15 km, then after travelling how much distance did the speed of the stream change?

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A. 4.5 km B. 5.5 km C. 3 km D. 4 km E. 5 km
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31. The ratio of time taken by Hunny and Bunny to swim a certain distance downstream in a river is 3:4 respectively. The time taken by Bunny to cover a certain distance upstream is 50% more than the time taken by him to cover the same distance downstream. What is ratio of speed of Hunny to that of Bunny?

A. 7 : 6 B. 5 : 7 C. 7 : 5 D. 6 : 7 E. None of these

32. The speed of boat A is 2 km/hr less than the speed of boat B. The time taken by boat A to cover a distance of 20 Km downstream is 30 min more than the time taken by B to cover the same distance downstream. If the speed of the current is one-third of the speed of boat A, what is the speed of boat B?

A. 9 kmph B. 8 kmph C. 7 kmph D. 6 kmph E. None of these

33. A boat goes to a place 60 km distant and comes back in 35 hours. If it takes equal time to row 4 km with the stream that it takes to row 3 km against the stream. Find the average of the speed in still water and speed in stream?

A. 3 km/h B. 1.5 km/h C. 2 km/h D. 2.5 km/h E. None of these

34. A boat running upstream takes 10 hours to cover a certain distance, while it takes 6 hours 40 minutes to cover the same distance running downstream. What is the ratio between the speed of the boat in upstream to the speed of the boat in still water respectively?

A. 5 : 3 B. 3 : 5 C. 5 : 4 D. 4 : 5 E. None of these

35. Speed of boat in still water is x km/hr and the speed of the stream is y km/hr. It can cover 52 km downstream and 35 km upstream in 9 hours. Find the value of y if the boat can cover 63 km upstream and 78 km downstream in 15 hours

A. 13 kmph B. 10 kmph C. 7 kmph D. 6 kmph E. None of these

36. A fisherman swims to catch fishes and he on an average travelled around 40 km against the current and 64 km with the current in 6 hours. Also at the same time he can cover 80 km against the current and 96 km with the current together in 11 hours. Determine the speed with which the current is flowing?

A. 10 km/hr B. 21 km/hr C. 32 km/hr D. 11 km/hr E. None of these

37. The speed of boat P and Q is 40km/h and 'x'km/h respectively. The speed of stream A and stream B is 'y'km/h and 20km/h respectively. The total taken by boat P to cover 450 km upstream and the same distance downstream in stream A is 24 hours and the total time taken by boat Q to cover 320 km upstream and 320 km downstream in stream B is 12 hours. Find the value of x + y?

A. 90 km/hr B. 70 km/hr C. 20 km/hr D. 15 km/hr E. None of these

38. A river is flowing at the speed of 2 km/hr. Boat A is running from point X to point Y against the river and B is moving from point Y to point X in the direction of flow of the river. The speed of boat A in still water is 14 km/hr and the ratio of the speed of boat A while travelling upstream to speed of boat B while travelling downstream in the

river is 3 : 4 respectively. Boat A and Boat B start from their respective sources simultaneously but after 4 hours 24 minutes due to technical problem speed of boat B reduces by 25%. If both cases cross each other in 6 hours from the start then, find the distance between X and Y.

A. 161.6 km B. 178.2 km C. 164.4 km D. 171.8 km E. None of these

39. The distance between two points on a river is D km. A man rowing a boat along the stream finds that the distance of rowing along the stream is 30 times the total distance and when he started rowing against the stream the distance he rowed was found 4 times of total distance. The total time taken against the stream is 10% more than that along the stream. If the boat cover 135 km along the stream in 9 hours. What is the speed of stream?

A. 3 km/h B. 3.25 km/h C. 3.5 km/h D. 2.5 km/h E. None of these

40. A boat goes 80km upstream and then 200km downstream in 13hrs. The speed of the stream in upstream travel is 4km/h and in downstream it is 5km/h. How much distance boat will cover in 7 hrs in still water?

	A. 147 km	B. 105 km	C. 210 km	D. 140 km	E. None of these
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- 41. The ratio of speed of A and B in still water is 5 : 7. If A and B both start from the same point simultaneously and travel downstream, the distance between them 4 hours later will be 24 km. What will be the distance between them after 6 hours, when they travel in opposite directions simultaneously from the same point in still water?

 A. 216 km
 B. 180 km
 C. 240 km
 D. 210 km
 E. None of these
- 42. A boat goes 288 km downstream and 352 upstream in 34 hrs. The speed of current is 20% of the still water speed of boat. How much distance boat will travel in 8hrs in still water?

A. 168 km B. 160 km C. 144 km D. 176 km E. None of these

43. The speed of motorboat in still water is 35 km/hr. It takes 6 hours to go 180 km upstream. Find the time taken by the motorboat to return the same distance.

A. 3.5 hours B. 2.5 hours C. 4 hours D. 4.5 hours E. None of these

44. A man rows to a place 46 km distance and back in 11 hours 30 minutes. He found that he can row 5 km with the stream in the same time as he can row 4 km against the stream. Find the rate of the stream.

A. 0.6 km/hrs. B. 0.7 km/hrs. C. 0.8 km/hrs. D. 0.9 km/hrs. E. None of these

45. Two motorboats A, and B started simultaneously travel towards each other from the point X and point Y in upstream and downstream respectively and meet each other in 15 hours. The speed of the motorboat A in still water is twice of the speed of the motorboat B in still water. What is the distance between point X and point Y? (It is given that the difference between the speed of motorboat A in still water and the speed of the motorboat B in still water is 15 km per hour)

A. 630 km	B. 650 km	C. 675 km	D. 700 km	E. None of these
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46. Radha can row upstream at 20 km/hr and downstream at 24 km/hr. Find the average of Radha's rate in still water and rate of the current.

A. 11 km/hr	B. 14 km/hr	C. 16 km/hr	D. 12 km/hr	E. 18 km/hr
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47. A man can row 30 km downstream in 3 hours 45 minutes and 11 km upstream in 2 hours 12 minutes. What is the difference between the speed of the man in still water and the speed of the stream ?

A. 6 km/h B. 8 km/h C. 5 km/h D. 7 km/h E. 4.5 km/h

48. Two boats A and B are travelling towards each other from points P and Q, respectively in a river in which water flows from P to Q at a speed of 4 km/hr. The speed of boat A in still water is 10 km less than the speed of boat B in still water and the distance between point P and point Q is 259 km. Both start at the same time and the boat B meets boat A 133 km away from point Q. Find the time taken by both boats to meet each other.

A. 3.5 hours B. 4 hours C. 2.5 hours D. 3 hours E. 5 hours

49. A boat can travel 9.6 km upstream in 36 min. If speed of the water current is 20% of the speed of the boat in upstream, then how much time will the boat take to travel 24.64 km downstream?

 A. 1.5 hours
 B. 1.2 hours
 C. 2.4 hours
 D. 1.1 hours
 E. 3.2 hours

50. A boat can travel from point A to point B and return back to point A in 9 hours. Speed of the boat in still water is 8 km/h and the speed of the stream is 4 km/h. Find the distance between A and B.

A. 18 km B. 27 km C. 36 km D. 45 km E. None of these

1	А	11	В	21	C	31	С	41	А
2	D	12	А	22	В	32	В	42	В
3	А	13	А	23	D	33	С	43	D
4	В	14	С	24	В	34	D	44	D
5	В	15	В	25	А	35	E	45	С
6	А	16	А	26	D	36	D	46	D
7	D	17	С	27	E	37	В	47	С
8	С	18	D	28	С	38	Α	48	Α
9	D	19	С	29	С	39	E	49	D
10	В	20	С	30	E	40	D	50	В

ANSWERS