## 108 DAYS ONLINE COACHING DAY(23) 05/03/2020 THURSDAY

Boats and Stream



Name of the candidate *
$\square$

Place of the candidate *

Thiruvananthapuram $\quad$

WHATS APP NUMBER (JOINED IN SAI EDUCATION ONLINE)
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1. Speed of a boat along the flow of river is $36 \mathrm{~km} / \mathrm{hr}$ and still water speed of the boat 1 point is $32 \mathrm{~km} / \mathrm{hr}$. What is the speed of the boat against the flow of water *$28 \mathrm{~km} / \mathrm{hr}$$26 \mathrm{~km} / \mathrm{hr}$$27 \mathrm{~km} / \mathrm{hr}$$25 \mathrm{~km} / \mathrm{hr}$
2. Speed of the boat against the flow of river is $28.9 \mathrm{~km} / \mathrm{hr}$ and rate of flow is 3.1.km/hr.What is the downstream speed. *$34.1 \mathrm{~km} / \mathrm{hr}$$34 \mathrm{~km} / \mathrm{hr}$$35.1 \mathrm{~km} / \mathrm{hr}$$35 \mathrm{~km} / \mathrm{hr}$
3. Speed of the boat along the flow of river is $35.1 \mathrm{~km} / \mathrm{hr}$.Speed of the boat against the 1 point flow of river is $28.7 \mathrm{~km} / \mathrm{hr}$.What is the still water speed. *$31 \mathrm{~km} / \mathrm{hr}$$31.9 \mathrm{~km} / \mathrm{hr}$$30 \mathrm{~km} / \mathrm{hr}$$30.1 \mathrm{~km} / \mathrm{hr}$
4. A man can row upstream at $8 \mathrm{~km} / \mathrm{hr}$ and downstream at $13 \mathrm{~km} / \mathrm{hr}$. The speed of the 1 point stream is *$2 \mathrm{~km} / \mathrm{hr}$$2.5 \mathrm{~km} / \mathrm{hr}$$3 \mathrm{~km} / \mathrm{hr}$$3.5 \mathrm{~km} / \mathrm{hr}$
5. The rates in upstream and downstream of a swimmer are $10 \mathrm{~km} / \mathrm{hr}$ and $13 \mathrm{~km} / \mathrm{hr}$.1.km/hr$1.5 \mathrm{~km} / \mathrm{hr}$$0.5 \mathrm{~km} / \mathrm{hr}$$2 \mathrm{~km} / \mathrm{hr}$
6. Ariver is running at a rate of $5.9 \mathrm{~km} / \mathrm{hr}$ and still water speed of a boat is $38.1 \mathrm{~km} / \mathrm{hr}$. Find the upstream speed of the boat. *$32 \mathrm{~km} / \mathrm{hr}$$32.1 \mathrm{~km} / \mathrm{hr}$$32.2 \mathrm{~km} / \mathrm{hr}$$32.3 \mathrm{~km} / \mathrm{hr}$
7. A man takes 6 hours to complete a distance of 36 km in downstream. He takes 51 point hours to complete a distance of 25 km in upstream. How long will he take to complete a distance of 22 km in still water. *2 hrs3 hrs4 hrs5 hrs
8. A man takes 7 hrs to complete a distance 77 kms in downstream. The sametime taken to complete a distance 63 kms in upstream. HOw long will he take to complete a distance 50 km in still water. *3hr4 hr5 hr6 hr
9.Find the speed of the boat if it takes 3 hrs to travel a distance of 90 kms upstream 1 point and speed of the stream is $4 \mathrm{~km} / \mathrm{hr}$ *$31 \mathrm{~km} / \mathrm{hr}$$32 \mathrm{~km} / \mathrm{hr}$$33 \mathrm{~km} / \mathrm{hr}$
() $34 \mathrm{~km} / \mathrm{hr}$
10.Find the distance covered by the boat upstream if it travels for 2 hrs . Speed of the stream is $7 \mathrm{~km} / \mathrm{hr}$ and that of the boat is $57 \mathrm{~km} / \mathrm{hr}$. *80km90km100km110km
11.What is the time taken by the boat to travel 120 km upstream and back to the starting point if the speed of the stream is $25 \mathrm{~km} / \mathrm{hr}$ and the speed of the stream is $5 \mathrm{~km} / \mathrm{hr}$. *$6 \mathrm{hr}, 4 \mathrm{hr}$$10 \mathrm{hr}, 2 \mathrm{hr}$$3 \mathrm{hrs}, 4 \mathrm{hrs}$$7 \mathrm{hrs}, 8 \mathrm{hrs}$
9. A man rows upstream 16 km and downstream 28 km taking 5 hrs each time, then the velocity of the current is *$1 \mathrm{~km} / \mathrm{hr}$$1.5 \mathrm{~km} / \mathrm{hr}$$1.2 \mathrm{~km} / \mathrm{hr}$$1.6 \mathrm{~km} / \mathrm{hr}$
10. Up stream speed of a boat is $20 \mathrm{~km} / \mathrm{hr}$ and down stream speed of the same is $30 \mathrm{~km} / \mathrm{hr}$.What is the difference between the normal speed of the boat and average speed of the journey. *$24 \mathrm{~km} / \mathrm{hr}$$25 \mathrm{~km} / \mathrm{hr}$$1 \mathrm{~km} / \mathrm{hr}$$2 \mathrm{~km} / \mathrm{hr}$
14.Upstream speed of a boat is $12 \mathrm{~km} / \mathrm{hr}$. Downstream speed is $18 \mathrm{~km} / \mathrm{hr}$.What is the difference between normal speed of the boat and average speed of the journey. *$1 \mathrm{~km} / \mathrm{hr}$$0.4 \mathrm{~km} / \mathrm{hr}$$0.6 \mathrm{~km} / \mathrm{hr}$$0.8 \mathrm{~km} / \mathrm{hr}$
15.A man takes twice as long to row up as to row down the river. If the river is running 1 point at rate of $3 \mathrm{~km} / \mathrm{hr}$, find the still water speed of the boat. *$6 \mathrm{~km} / \mathrm{hr}$$7 \mathrm{~km} / \mathrm{hr}$$8 \mathrm{~km} / \mathrm{hr}$
() $9 \mathrm{~km} / \mathrm{hr}$
16.A man takes thrice times as long to row up as to row down the river. If the river is 1 point running at a rate of $4 \mathrm{~km} / \mathrm{hr}$, find the still water speed of the boat. *$6 \mathrm{~km} / \mathrm{hr}$$7 \mathrm{~km} / \mathrm{hr}$$8 \mathrm{~km} / \mathrm{hr}$$9 \mathrm{~km} / \mathrm{kr}$
11. A man takes 5 times as long to row up as to row down the river. If the still water speed of the boat is $25 \mathrm{~km} / \mathrm{hr}$, what is the rate of flow. *$16 . .66 \mathrm{~km} / \mathrm{hr}$$16 \mathrm{~km} / \mathrm{hr}$$15 \mathrm{~km} / \mathrm{hr}$$15.6 \mathrm{~km} / \mathrm{hr}$
18.Still water speed of a boat is $10 \mathrm{~km} / \mathrm{hr}$ and rate of flow is $2 \mathrm{~km} / \mathrm{hr}$. A man completed a distance 48 kms and came back to the starting point. Find the total time taken by him. *6hrs7 hrs9 hrs
( 10 hrs
19.A man takes 9 hrs to complete a distance upstream and same distance covered in downstream in 6 hrs .If the rate of flow is $3 \mathrm{~km} / \mathrm{hr}$, find the still water speed of the boat.
*$13 \mathrm{~km} / \mathrm{hr}$14km/hr$15 \mathrm{~km} / \mathrm{hr}$$16 \mathrm{~km} / \mathrm{hr}$
12. Speed of river is $6 \mathrm{~km} / \mathrm{hr}$. Speed of a motorboat in still water is $30 \mathrm{~km} / \mathrm{hr}$. How much distance can it cover downstream in 24minutes? *a. 9.8 kmb. 864 mc. 12.8 kmd. 14.4 km
13. A boat's speed in still water is $10 \mathrm{~km} / \mathrm{h}$ while river is flowing with speed of $2 \mathrm{~km} / \mathrm{h}$ and time to cover a certain distance upstream is 4 h more than time taken to cover the same distance downstream. Find the distance. *95 km

- 96 km97km98 km

22. A boat can travel with a speed of $13 \mathrm{~km} / \mathrm{hr}$ in still water. If the speed of the stream 1 point is $4 \mathrm{~km} / \mathrm{hr}$, find the time taken by the boat to go 68 km downstream. *A. 2 hoursB. 3 hoursC. 4 hoursD. 5 hours
23. A man's speed with the current is $15 \mathrm{~km} / \mathrm{hr}$ and the speed of the current is 2.5 $\mathrm{km} / \mathrm{hr}$. The man's speed against the current is: *A. $8.5 \mathrm{~km} / \mathrm{hr}$B. $9 \mathrm{~km} / \mathrm{hr}$C. $10 \mathrm{~km} / \mathrm{hr}$D. $12.5 \mathrm{~km} / \mathrm{hr}$
24. A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between the speed of the boat and speed of the water current respectively? *A. $2: 1$B. $3: 2$C. $8: 3$D. Cannot be determinedE. None of these
25. The speed of a boat in still water in $15 \mathrm{~km} / \mathrm{hr}$ and the rate of current is $3 \mathrm{~km} / \mathrm{hr}$. The 1 point distance travelled downstream in 12 minutes is: *A. 1.2 kmB. 1.8 kmC. 2.4 km
( D. 3.6 km

## Thankyou!!!

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