## 108 DAYS ONLINE COACHING DAY(13) 20/02/2020 THURSDAY

TIME,DISTANCE AND SPEED



Name of the candidate *
M3

Place of the candidate *

Thiruvananthapuram $\nabla$

WHATS APP NUMBER (JOINED IN SAI EDUCATION ONLINE) *
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https://youtu.be/Ro8456-ADbE https://youtu.be/5GrXzQsDRc0 https://youtu.be/I3EjABJiDos

1. Vijay crosses a street 600 m long in 5 min . His speed is *$2.7 \mathrm{~km} / \mathrm{hr}$$7.2 \mathrm{~km} / \mathrm{hr}$$3.6 \mathrm{~km} / \mathrm{hr}$$36.3 \mathrm{~km} / \mathrm{hr}$
2.Arjun covers 10.2 km in 3 hrs . The distance covered by him in 5 hrs is $\qquad$ *52 km51 km17 km19 km
2. A ship sails to a certain city at $20 \mathrm{knots} / \mathrm{hr}$ and sails back to the same point at the rate of $30 \mathrm{knots} / \mathrm{hr}$.What is the average speed for the whole journey. *12knots/hr21 knots/hr24knots/hr42knots/hr
4.A boy goes to school at the speed of $3 \mathrm{~km} / \mathrm{hr}$ and returns at the speed of $2 \mathrm{~km} / \mathrm{hr}$.If he takes 5 hours in all,find the distance in km between the village and school. *
( 6 km$6 m$66 km66 m
3. $A$ and $B$ are two towns. A car goes from $A$ to $B$ at a speed of $64 \mathrm{~km} / \mathrm{hr}$ and returns to 1 point A at a slower speed. If its average speed for the whole journey is $56 \mathrm{~km} / \mathrm{hr}$, it returned with what speed? *$497 \mathrm{~km} / \mathrm{hr}$$49.7 \mathrm{~km} / \mathrm{hr}$$4.97 \mathrm{~km} / \mathrm{hr}$$0.497 \mathrm{~km} / \mathrm{hr}$
4. A bicycle rider covers his onward journey from $A$ to $B$ at $10 \mathrm{~km} / \mathrm{hr}$ and during the return journey from $B$ to $A$ he covers the same distance at $8 \mathrm{~km} / \mathrm{hr}$.If he finishes the onward and return journey in $4(1 / 2)$ hours,then the total distance covered by him during the entire journey. *4 km44km40 m
( 40 km
5. Once in a tour, a man travels at a rate of 64 km an hour for the first 160 km ,then travels the next 160 km at the rate of 80 km an hour.The average speed in km/hr for the first 320 km of the tour is $\qquad$ *$71.11 \mathrm{~km} / \mathrm{hr}$$7.111 \mathrm{~km} / \mathrm{hr}$$711.1 \mathrm{~km} / \mathrm{hr}$$7.111 \mathrm{~m} / \mathrm{sec}$
6. Prathap went from Delhi to Shimla via Chandigarh by car .The distance from Delhi to Chandigarh is $3 / 4$ times the distance from Chandigarh to Shimla.The average speed from Delhi to Chandigarh is $3 / 2$ times the average speed from Chandigarh to Shimla.lf the average speed for the entire journey was $49 \mathrm{~km} / \mathrm{hr}$, then what was the average speed from Chandigarh to Shimla. *$21 \mathrm{~km} / \mathrm{hr}$42km/hr$21 \mathrm{~m} / \mathrm{sec}$$42 \mathrm{~m} / \mathrm{sec}$
9.A car during its journey travels 40 min at a speed of $30 \mathrm{~km} / \mathrm{hr}$ another 50 minutes at 1 point a speed of $60 \mathrm{~km} / \mathrm{hr}$ and 1 hour at a speed of $30 \mathrm{~km} / \mathrm{hr}$.Find the average speed of the car. *$4 \mathrm{~km} / \mathrm{hr}$$4 \mathrm{~m} / \mathrm{sec}$
( $40 \mathrm{~km} / \mathrm{hr}$$40 \mathrm{~m} / \mathrm{sec}$
7. A man walks 6 km at a speed of $1(1 / 2) \mathrm{km} / \mathrm{hr}$ and runs 8 km at a speed of $2 \mathrm{~km} / \mathrm{hr} \quad 1$ point and goes by bus another 32 km . Speed of the bus is $8 \mathrm{~km} / \mathrm{hr}$. If the speed of the bus is considered as the speed of the man, then find his average speed. *
( $23 / 6 \mathrm{~km} / \mathrm{hr}$$2 / 36 \mathrm{~km} / \mathrm{hr}$$236 \mathrm{~km} / \mathrm{hr}$$2 / 36 \mathrm{~m} / \mathrm{s}$
8. Athira starts his journey from Delhi to Bhopal and simultaneously Jyothi starts from 1 point Bhopal to Delhi .After crossing each other they finish their remaining journey in $5(4 / 9) \mathrm{hrs}$ and 9 hours respectively. What is Jyothi's speed if Athira's speed is $36 \mathrm{~km} / \mathrm{hr}$. *$4 \mathrm{~km} / \mathrm{hr}$$2.8 \mathrm{~m} / \mathrm{sec}$$2.8 \mathrm{~km} / \mathrm{hr}$$28 \mathrm{~km} / \mathrm{hr}$
9. A man travels 360 km in 4 hrs partly by air and partly by train.If he had travelled all the way by air ,he would have saved $4 / 5$ of the time he was in train and would have arrived his destination 2 hours early.Find the distance he travelled by air and train. *$270 \mathrm{~km}, 90 \mathrm{~km}$90km,270km$27 \mathrm{~km}, 90 \mathrm{~km}$$27 \mathrm{~km}, 9 \mathrm{~km}$
10. Two boys begin together writing out a booklet containing 8190 lines. The first boy starts with a first line writing at the rate of 200 lines an hour and the second boy starts with the last line then writes 8189th line and so on, proceeding backward at the rate of 150 line an hour. At what line will they meet? *23401220
(-) 46803240
11. $A, B \& C$ start together from the same place to walk around a circular path of length 1 point 12 km . A walk at the rate of $4 \mathrm{~km} / \mathrm{hr}$. B at the rate of $3 \mathrm{~km} / \mathrm{hr}$ and C at the rate of $3 / 2$ $\mathrm{km} / \mathrm{hr}$.They will meet together at the starting place after how much time. *24 sec2.4 hrs2.4 sec
() 24 hrs
12. A starts from a place $P$ to go to a place $Q$. At the same time $B$ starts from $Q$ for P.lf 1 point after meeting each other. $A$ and $B$ took 4 and 9 hours more respectively to reach their destination, the ratio of their speed is *$3: 2$2:39:22:9
13. By walking 4/5th of the usual speed ,Rave is 6 minutes late to office.Find his usual time to cover the distance. *30 min43 min24 min42 min
14. By walking 3/4th of his usual speed a man reaches office 20 minutes later than usual. His usual time is $\qquad$ - *20 min30 min60 min90 min
18.Two bicyclists do the same journey by travelling respectively at the rates of $9 \mathrm{~km} / \mathrm{hr} 1$ point and $10 \mathrm{~km} / \mathrm{hr}$. Find the length of the journey when one takes 32 minutes longer than the other *84 km32 km23 km

- 48 km

19. A thief runs at a speed of $10 \mathrm{~m} / \mathrm{s}$. A policeman runs behind him at a speed of $12.5 \mathrm{~m} / \mathrm{s} 1$ point , but the policeman had started running after 10 sec . Find after how many metres will the policeman catch the thief. *100 m300 m400 m
( 500 m
20.Two people cover the same distance at a speed of $25 \mathrm{~km} / \mathrm{hr}$ and $30 \mathrm{~km} / \mathrm{hr}$.Find the distance travelled if one person takes 25 minutes more than the other. *$1 / 12 \mathrm{~m}$$1 / 12 \mathrm{~km}$125/2 m
( $125 / 2 \mathrm{~km}$
21.A person covers a certain distance at a speed of $60 \mathrm{~km} / \mathrm{hr}$ without stoppage and with stoppages. He travels the same distance at a speed of 40 km/hr. How many minutes per hour does he stop? *$20 \mathrm{~min} / \mathrm{hr}$$30 \mathrm{~min} / \mathrm{hr}$$40 \mathrm{~min} / \mathrm{hr}$$50 \mathrm{~min} / \mathrm{hr}$
20. A bus running at a speed of $30 \mathrm{~km} / \mathrm{hr}$ leaves Trivandrum at 10 am and another bus 1 point running at a speed of $40 \mathrm{~km} / \mathrm{hr}$ leaves the same place at 3 pm in the same direction. How many km from Trivandrum will they be together. *400 km500 km600 km300 km
21. A person covers a distance in 40 min if he runs at a speed of $45 \mathrm{~km} / \mathrm{hr}$ on an average. .Find the speed at which he must run to reduce the time of journey to 30 min .
*70 km/hr60 km/hr$50 \mathrm{~km} / \mathrm{hr}$20 km/hr
22. A person has to reach a certain place and he find that he will be 15 min late if he walks at $4 \mathrm{~km} / \mathrm{hr}$ and 10 min earlier if he walks at $6 \mathrm{~km} / \mathrm{hr}$. Find the distance he has to cover. *3 km4 km5 km6 km
23. A man covers a distance between his house and office on scooter .Having an average speed of $30 \mathrm{~km} / \mathrm{hr}$, he is late by 10 min . However, with a speed of $40 \mathrm{~km} / \mathrm{hr}$, he reaches his office 5 min earlier. Find the distance between his house and office. *10 km20 km30 km40 km

Thankyou!!!

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