

NPTEL » Convective Heat Transfer

Announcements

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Mentor

Unit 12 - Week 10-Turbulence I

ourse outline	Accianment 10		
w to access the	Assignment 10		
tal	The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.	Due on 2019-10-09, 23:59 IST.	
ek - 1	It is intended to resolve high frequency fluctuations inc	fuced by small scale eddies in the 1 nois	
k 2 - External ed Convection-I	highly turbulent flow over a flat plate, of the following which problem		
c 3 - External ed convection -II	RANSLESBoth a and b		
04-Internal d Convection-I	None of the above No, the answer is incorrect.		
5: internal convection -II	Score: 0 Accepted Answers:		
- External Convection I	What happens to the pressure drag if flow in the bound turbulent in the flow past a sphere	dary layer suddenly transits to 1 poin	
7: External	IncreaseDecrease		
3- Internal I convection I	Remains unaltered increases and then decreases		
-Internal convection II	No, the answer is incorrect. Score: 0 Accepted Answers: Decrease		
10-Turbulence I ynold's Averaged	3) Air at 25°C and 1 atm from a blower made to flow over a long flat plate with a 1 point velocity of bulk velocity 8 m/s. Take critical Reynolds number (Re_{cr}) as = 5′10 ⁵ . If the bulk velocity is doubled (i.e. 16 m/s), what happens to boundary layer thickness		
Navier Stokes equation – I	Decrease by two times	idary layer trickriess	
nold's Averaged ier Stokes	Decrease by four timesIncrease by two times		
ulent boundary r – Viscous sub	No, the answer is incorrect.		
	Score: 0 Accepted Answers: Decrease by two times		
ulent boundary r – Fully turbulent layer	4) Air at 152.77 m/s is blowing parallelly over the surface If the air outside is at 5°C and the surface temperature of the surfa		
t transfer in ulent boundary r	heat loss from that wall by convection	•	
: Assignment	○ ~ 9 kW ○ ~ 2.5 kW		
Turbulence	○ ~ 17 .23 kW No, the answer is incorrect.		
: Advanced	Score: 0 Accepted Answers: ~ 9 kW		
nscripts	5) If the flow in the boundary layer suddenly becomes turis doubled), the resultant Stanton number becomes	bulent (assume Reynolds number 1 poi n	
	O Double		
	O Quadruple		
	Reduced by half		
	Remains unaltered		

No, the answer is incorrect.

Accepted Answers: Double

Score: 0