Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: SY & B.Tech Aero	**School of Technology**	**Department: Aero**
Course Code: AET204	**Course Title: Aerodynamics I**	**Semester : IV**
Day and Date: 22.06.2021,Tuesday	**End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Instructions: 1) All Questions are compulsory.
2) Assume data wherever necessary

		Marks	Bloom's Level	CO
Q.1	**Answer/Solve the following (any Two)**			
a)	Derive Continuity Equation with its applications	8	L_2	1
b)	Explain about application of Momentum Equation: Drag of a 2D Body.	8	L_2	1
c)	Write short notes on doublet flow.	8	L_2	2
Q.2	**Answer/Solve the following (any two)**			
a)	Write short notes on Kutta – Joukowaski transformation of a circle into Flat plate.	8	L_2	3
b)	Explain in detail about Conformal Transformation of a circle into ellipse.	8	L_2	3
c)	Write short notes on Classical Thin Airfoil Theory for Symmetrical Airfoil	8	L_2	4
Q.3	**Answer/Solve the following (any two)**			
a)	Derive Prandtl's Classical Lifting Line Theory	9	L_2	4
b)	Write notes on downwash and induced drag	9	L_2	4
c)	Describe in detail about Blade element theory of Propulsion.	9	L_2	5

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