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	**School of Technology**	**Department: AERO**
Course Code: AET203	**Course Title: Elements of Aeronautical Engineering**	**Semester : III**
Day : Wednesday **Date: 03.02.2021**	**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 the following (any Two)**–			
	a)	Differentiate between lighter than air and heavier than than air aircrafts and also explain in detail of all the types.	8	2	CO1
	b)	Consider any two airfoil shape on your own and explain in detail the procedures involved in airfoil testing in an wind tunnel.	8	2	CO2
	c)	List on the falcon9 and falcon heavy launches and describe the significance of each one in detail.	8	2	CO1
Q.2		**Answer the following (any two) –**			
	a)	Differentiate between turbojet engine and turbofan engine in terms of engine performance and efficiency.	8	2	CO3
	b)	In a B737 airplane, explain the working mechanism of landing gear with a schematic diagram.	8	2	CO4
	c)	How do certain aircrafts manage to attain higher altitudes? Give your comment on design rather than speed.	8	2	CO3
Q.3		**Answer the following (any two) –**			
	a)	Briefly explain about the various Aluminum alloys used in aircraft and their applications**.**	9	4	CO4
	b)	During a flight mission, how will you apply the equation of climbing flight and gliding flight, explain with neat sketch**.**	9	4	CO5
	c)	Explain the functions of primary control surfaces of an aircraft.	9	4	CO5

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