AE700

PRN: Course Code : AER4701

Final Year **B. Tech** End Semester Examination Winter 2023

AIRCRAFT SYSTEMS

Day and Date: Tuesday, 28/11/2023 Max Marks: **100**

Time : 2.00 to 5.00 PM Duration: **03** hrs

Instructions: All questions are compulsory.

			Marks	Bloom's Level	CO
Q.1		**Attempt the following**			
	a)	Explain in brief about Emergency Power Sources.	08	02	CO1
	b)	Write about landing gear. Give the types & explain the function of the landing gear.	08	02	CO1
		OR			
	b)	What is Hydraulic Fluid? Explain different types of Hydraulic Fluid used in Aircraft Systems.	08	02	CO1
Q.2		**Attempt the following**			
	a)	State the Principle of Flight Control System.Explain in detail about its Primary Flight controls.	08	02	CO2
	b)	What are the secondary control systems in flight? Explain it in detail.	08	02	CO2
		OR			
	b)	Explain the different Fly-By-Wire control laws.	08	02	CO2
Q.3		**Attempt any two from the following**			
	a)	Write an overview of an aircraft lighting system.	08	02	CO3
	b)	Brief about Power Conversion and Energy Storage.	08	02	CO3
	c)	What do you mean by electric aircraft? Explain the basic components of an aircraft electrical system.	08	02	CO3
Q.4		**Attempt any two from the following**			
	a)	What do you understand by the term engine control system?Elaborate about ECS function.	08	02	CO4
	b)	List down control problem and explain Fuel flow control.	08	02	CO4
	c)	How can a control problem be prevented in civil and military aircraft?	08	02	CO4
Q.5		**Attempt any Two of the following**			
	a)	Explain in detail about fuel system and its types	09	02	CO5
	b)	Describe about fuel system operating modes	09	02	CO5
	c)	Write short notes on Fuel Quantity Measurement.	09	02	CO5

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Q.6		**Attempt any Two of the following**			
	a)	Explain Emergency Power source.	09	02	CO5
	b)	What do you understand about passengers evacuation ? Explain its process.	09	02	CO5
	c)	Write short notes on fire detection and suppression.	09	02	CO5

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