

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**Diploma Engineering, Mid semester Examination**

**Semester: 4<sup>th</sup>**  
**Subject Code: (03613257)**  
**Subject Name: (Aircraft Systems)**

**Date: (23/01/ 2023 )**  
**Time: (1hr: 30min)**  
**Total Marks: 40**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

<b>Q.1</b>	<b>Answer any six out of Ten. (2 Marks Each)</b>	<b>(12)</b>	<b>CO/PO NAME</b>	<b>Bloom's Taxonomy Word</b>
	1. What do you mean by Aircraft Systems?		<b>CO1</b>	<b>Knowledge</b>
	2. Enlist types of systems. Any 8		<b>CO1</b>	<b>Analyze</b>
	3. Explain aircraft lubrication system.		<b>CO1</b>	<b>Understand</b>
	4. Explain aircraft cooling system.		<b>CO1</b>	<b>Understand</b>
	5. Define cloud point and Pour point.		<b>CO3</b>	<b>Knowledge</b>
	6. How does temperature affect the viscosity of oil?		<b>CO3</b>	<b>Knowledge</b>
	7. Write down advantages of pressure lubrication.		<b>CO3</b>	<b>Analyze</b>
	8. Explain aircraft fuel system.		<b>CO1</b>	<b>Understand</b>
	9. Define flash point and Fire point.		<b>CO3</b>	<b>Knowledge</b>
	10. What is aircraft Pneumatic system?		<b>CO2</b>	<b>Knowledge</b>
<b>Q.2</b>	A) Explain types of friction.	<b>(03)</b>	<b>CO3</b>	<b>Understand</b>
	<b>OR</b>			
	A) Write short note on rigid removable fuel tanks.	<b>(03)</b>	<b>CO5</b>	<b>Evaluate</b>
	B) What are advantages and disadvantages of wet sump lubrication system?	<b>(03)</b>	<b>CO3</b>	<b>Knowledge</b>
	<b>OR</b>			
	B) Write down Requirement and characteristics of reciprocating engine lubricants.	<b>(03)</b>	<b>CO3</b>	<b>Evaluate</b>
	C) Explain Wet sump lubrication system for reciprocating engine.	<b>(04)</b>	<b>CO3</b>	<b>Understand</b>
	<b>OR</b>			
	C) Explain reciprocating engine lubrication system.	<b>(04)</b>	<b>CO3</b>	<b>Understand</b>
	D) Explain Dry sump lubrication system for reciprocating engine.	<b>(04)</b>	<b>CO3</b>	<b>Understand</b>
<b>Q.3</b>	A) Write down requirements for turbine engine lubricants.	<b>(03)</b>	<b>CO3</b>	<b>Evaluate</b>
	<b>OR</b>			
	A) Write short note on Integral fuel tanks.	<b>(03)</b>	<b>CO5</b>	<b>Evaluate</b>
	B) Write short note on Bladder fuel tanks.	<b>(03)</b>	<b>CO5</b>	<b>Evaluate</b>
	<b>OR</b>			
	B) Explain Gravity feed fuel system.	<b>(03)</b>	<b>CO5</b>	<b>Understand</b>
	C) Explain Turbine engine wet-sump lubrication system.	<b>(04)</b>	<b>CO3</b>	<b>Understand</b>
	<b>OR</b>			
	C) Explain Pump feed fuel system.	<b>(04)</b>	<b>CO5</b>	<b>Understand</b>
	D) Explain reciprocating engine cooling system.	<b>(04)</b>	<b>CO3</b>	<b>Understand</b>