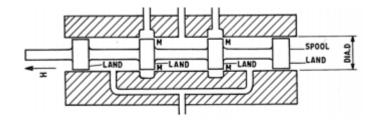
NA	ME: STUDENT #:		
	EE539 Aerospace Power Electronics and Actuation Systems (2019)		
Que	estion 1 (25 marks)		
Briefly explain the functions of the following wing surfaces			
1.	Rudder -		
2.	Aileron -		
3.	Elevator -		
4.	Speed brake -		
5.	Slat and Flap -		
Question 2 (25 marks)			
3 major advantages of swash type pump, over single cylinder cam shaft pump, for aircraft application.			
1.			

2.

3.

Question 3 (25 marks)

Draw two diagrams (rudder left and rudder right) to explain how this device can be used to move the rudder, together with the piston, torque motor, and other hydraulic components.



Rudder Left	Rudder Right
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	•
	•
	•
	•
	•

Question 3 (25 marks)

3 major differences between a "Freestanding Displacement Gyroscope" and a "Restrained Rate Gyroscope"

End of Test. Make sure you put your <u>name</u> and <u>student number</u> on this answer script.