1. Sketch a relief v/v for a fuel transfer pump and state why it is necessary
2 With reference to positive displacement pump explain the pulsation damper
Why some don't need it
3 Sketch a cross section of a valve for a fire main with materials
4. With respect to an air system why a fusible plug in compressor and receiver
5. What do you need to achieve the angular limit of steering gear how much is needed how is it done
Sketch a rotary vane and an axial piston pump and explain
6. Four causes of a pneumatic clutch failing
Two consequences of overheating
7The advantages and disadvantages of helix and spur gears
7. The advantages and disadvantages of helix and sput gears
8. why you need some angle of pitch to maintain neutral
What is the fail safe position
How is pitch restored in case of hydraulic faileure

9. in the case of an intermediate roller bearing how do you allow for misalignment fore aft and vertical
10 Sketch how a breaker limits heat transfer damage in case of overcurrent