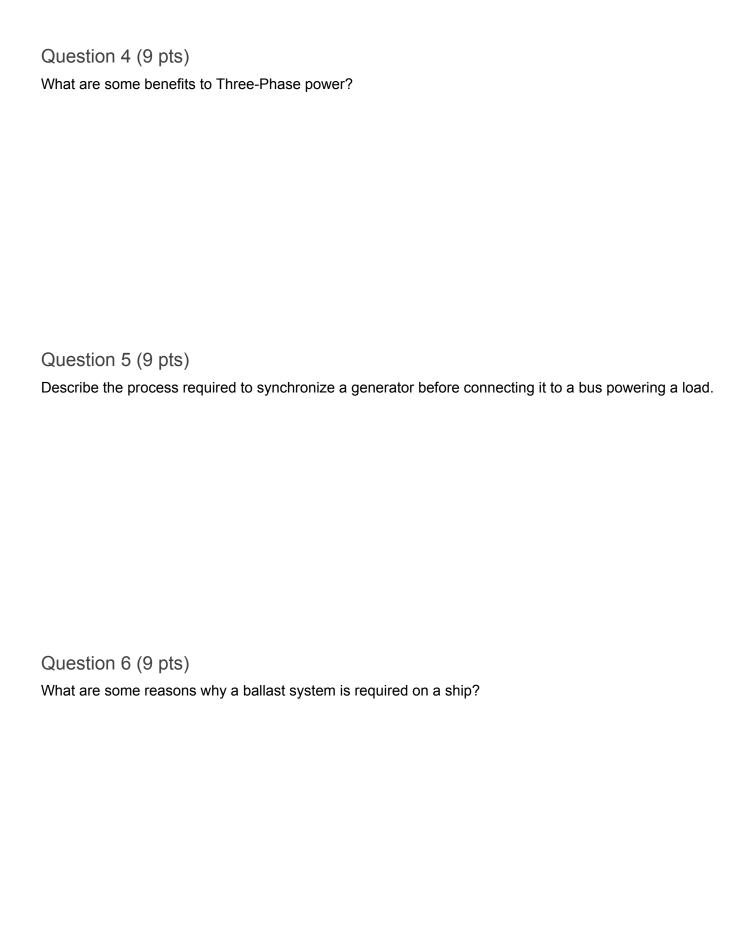
Name:	Alpha:
	SY486K
	6 Weeks Exam
	Spring AY2023
	Feb. 14, 2023
Open Slic	des, Notes, and Internet (no AI).
Please copy, verbatim,	the honor pledge in the box and sign your name on the line below.
	t of is bound by honor and integrity. I will not compromise our values by g or receiving unauthorized help on this exam."

Question 1 (8 pts)
Explain the relationship between the number of fins on a propeller and the induced vibration.
Question 2 (9 pts)
Briefly describe the difference between early ship steam engines and modern steam turbines.
Question 3 (9 pts)
Why would a ship run a cleaner burning propulsion system (such as LNG/Fuel Cell)?
,,



Question 7 (9 pts)
Describe the difference between greywater and blackwater and how they are treated onboard a ship.
Question 8 (9 pts)
What is an ECDIS and what is it used for on a ship?
Question 9 (9 pts)
Describe some limitations or weaknesses of current AIS systems?

Question 10 (20 pts)

Think about two different attacks that a knowledgeable cyber attacker could launch on a typical ship. Describe the method of ingress, systems affected, and consequences to the vessel.