

類 科：輪機技術

科 目：船舶輔機概要

考試時間：1小時30分

座號：\_\_\_\_\_

※注意：(一)禁止使用電子計算器。

(二)不必抄題，作答時請將試題題號及答案依照順序寫在試卷上，於本試題上作答者，不予計分。

一、請詳述冷凍機的工作原理。(20分)

二、請詳述船舶動力採用傳統 (conventional) 與中央 (centralized) 冷卻系統之優缺點。(20分)

三、請詳述離心式泵的工作原理，並說明渦卷泵與渦輪泵之構造與優缺點。(20分)

四、請列出四種常見之管子的連接方式與優缺點。(20分)

五、請將下列英文譯成中文。(20分)

The heat produced by running machinery, must be removed to ensure the satisfactory functioning of the equipment. Cooling is achieved primarily through circulation of water, oil and air, but the abundant supply of sea water is normally reserved for use as an indirect coolant, because the dissolved salts have a great potential for depositing scale and assistant in the setting up of galvanic corrosion cells. Pollution of coastal area by industrial and other wastes has added to the problems of using sea water as a coolant.