

Translate the following words into Chinese. (1% each)

- (1). Globalization, (2). Sanction, (3). Resilient, (4). Sustainability, (5). Maritime, (6). Jurisdiction, (7). Property, (8). Governance, (9). Archipelago, (10). Fisheries closure

(11). Translate the follow passage into CHINESE. (15%) (Source: Whaling and its controversies: Examining the attitudes of Japan's youth. Bowett, J. and P. Hay. 2009. Marine Policy 33:775-783.)

Pro-whalers in Japan have backed their arguments by: cultural claims, social claims, scientific claims, and sustainability claims. Anti-whaling proponents have long advanced arguments that are sourced to animal welfare and other ethical criteria, viewing whaling as uncivilized, barbaric and cruel, as well as citing the “unscientific” nature of lethal sampling and the potential dangers surrounding the hunting of some cetacean species whose population structures are still unknown. Currently, Japan is whaling for “scientific purposes” in the context of a “Japanese Whale Research Program under Special Permit in the Antarctic”, and since 1994 in the context of a corresponding program for the Northwest Pacific (JARPN), in accordance with Article VIII.I of the ICRW, whilst also maintaining small scale coastal whaling, hunting species not subject to the ICRW.

(12). Translate the follow passage into CHINESE. (15%) (Source: Importance of fish biodiversity for the management of fisheries and ecosystems. Hiddink, et al., 2008. Fisheries Research 90: 6-8.)

The European Union has made substantial progress in recent decades in developing the legislative framework for conservation and recovery of fish biodiversity; the European Parliament and Council have passed several regulations designed to protect fish stocks, conserve fish biodiversity, and move towards an ecosystem-based approach to fisheries management. The EU is also committed to many international fishery and biodiversity agreements. Despite the legislative progress, 22-53% of the exploited fish populations in north-east Atlantic waters have fallen below safe biological limits and many of these continue to be exploited at levels that hamper recovery; moreover some of the populations for which recovery plans have been developed and implemented have not recovered, partly because of high-by-catches in fisheries targeting other species.

Answer the comprehension questions below. For multiple-choice questions, select the SINGLE correct answer 單選.

A long war of the waters. (Source: The Economist. 2011. January 7.)

Two years ago Somalia's weak transitional government agreed to let foreign navies chase pirates into its territorial waters. Since then, the sea off Somalia's coast has been an increasing number of warships mainly from rich countries trying—with partial success—to fend off pirates from the poorest. Ships steaming along maritime corridors in convoys are safer than they were. So the pirates are being forced to venture ever farther out into the Indian Ocean to seize their booty. This means that the remoter reaches are still very dangerous.

Plainly there is no purely naval way to stop the pirates. Somalia's coast is more than 3,000km long. They seem unafraid of the warship. If accosted, the pirates usually dump their guns and grapple-hooks in the sea. The patrolling navies are reluctant to arrest them because of the legal complexities. On the rare occasions when pirates are taken aboard, they are usually given medicine, water and enough fuel to go back to Somalia. Within days they will set off again to seek their prey.

The European Union (EU) has signed a deal with Kenya to imprison captured pirates. But there are concerns that Kenya is asking for too many favors in return for embarking on what is bound to be a messy legal process. If the EU and other concerned countries could get the government of Tanzania, the Seychelles and other countries in the region to agree to prosecute pirates in their own courts, the legal deterrent against them would be stronger.

The pirates' main advantage is the lawlessness of Somalia which has long been enmeshed in civil war. Western governments fear that if they were to send their security forces to attack towns such as Haradheere, a pirate haven, the Islamist fighters of the Shabab militia, which control much of south and central Somalia and is linked to Al-Qaeda, might be strengthened.

- (13). The subject of these passages belong to all the following categories EXCEPT (a) maritime, (b) international affair, (c) politics, (d) coastal management, (e) homeland security of EU (5%)
- (14). What are the causes of the difficulty in stopping the pirates in the Somalia's coast? (10%)
- (15). Where does this maritime turmoil take place? (a) Central Pacific, (b) Western Atlantic, (c) West Africa, (d) Mediterranean Sea, (e) East Africa (5%)

Answer the comprehension questions below. For multiple-choice questions, select the SINGLE correct answer 單選.

Marine renewable energy: The ecological implications of altering the hydrodynamics of the marine environment. (Source: Shields *et al.* 2011. *Ocean & Coastal Management* 54: 2-9.)

Many countries now recognize the need for mitigation of climate change induced by human activities and have incorporated renewable energy resources within their energy policy. There are extensive resources of renewable energy within the marine environment and increasing interest in extracting energy from locations with either large tidal range, rapid flow with and without wave interaction, or large wave resources. However, the ecological implications of altering the hydrodynamics of the marine environment are poorly understood. Ecological data for areas targeted for marine renewable developments are often limited, not least because of the considerable challenges to sampling in high energy environments. In order to predict the scale and nature of ecological implications there is a need for greater understanding of the distribution and extent of the renewable energy resource and in turn, of how marine renewable energy installations may alter energy in the environment. Regional ecological implications of a MREI need to be considered against the greater and global ecological threat of climate change. Finally, it is recommended that the identification of species and biotopes susceptible to the removal of hydrokinetic energy could be a suitable strategy for understanding how a MREI may alter flow conditions.

- (16). What does the acronym MREI stand for? (2%).
- (17). This passage is associated with all of the following EXCEPT
(a) Green energy; (b) Avoiding climate change; (c) Ecology; (d) Tidal flow; (e) Dispersal and settlement of juvenile stage of marine biological species. (2%)
- (18). Which one of the following areas is related to the subject of this passage? (a) Sun-Moon Lake; (b) lagoon; (c); coral reef; (d) Kuroshio (or black current); (e) tide pool. (2%)
- (19). The main theme of this passage is about (a) the effect of the removal of kinetic energy from the marine environment; (b) the current state of the global marine environment; (c) the technique of constructing wave energy devices; (d) coastal management; (e) predicting production of green energy. (2%)
- (20). What information is NOT needed for predicting the effects of MREIs to the environment? (a) Detail design of the wave energy device; (b) Distribution of the species in the region; (c) Current pattern; (d) Nature of the biotope; (e) Sediment. (2%)
- (21). Write an ENGLISH essay addressing the potential economic and ecological impacts of artificial reefs. (30 points)