

1. 次の英文を読み、それに続く設問 A-1 から A-5 までに答えなさい。解答は、それぞれの設問に続く選択肢 1 から3までの中から答えとして最も適切なものを一つずつ選び、その番号のマーク欄を塗りつぶしなさい。

The coastal regions of Japan are known to be major nesting sites for loggerhead sea turtles. However, nobody knows much about the lives of these mysterious creatures. Where do they go and how are female turtles eventually able to return to their birthplace to nest?

Researchers in Japan and the United States have begun a joint project to trail the migration of the sea turtles. They intend to follow the movements of the turtles using a satellite and transmitters attached to the turtles' shells. Information about each turtle's location will be transmitted to the satellite each time it rises up to the surface.

The first group of 24 turtles was released from a ferry sailing off the Boso Peninsula in April of last year. Six months later, contact had been lost with one turtle, but another was found to be swimming near the international dateline in an area some 2,750 km from Hawaii.

"Young turtles are light and tend to float on the sea current. In theory, they are able to return to Japan after traveling around the Pacific for two or three years. But we never see turtles of that age in Japan," said one researcher.

The researchers believe the biggest obstacle to their project – bigger even than the risk of attacks by sharks – is that of the life of the batteries used in the transmitters. At present, the batteries can only last up to $1\frac{1}{2}$ years. The researchers are now considering how and when they might be able to replace these batteries.

<注> loggerhead sea turtle アカウミガメ migration 移動、回遊

(設問)

A-1 What do we know for sure about the lives of loggerhead sea turtles?

1. They spend most of their lives in the coastal waters of Japan.
2. Females usually give birth in the place where they were born.
3. Nobody knows much about where female turtles are born.

A-2 How do the researchers plan to track the position of the turtles?

1. They are going to follow the turtles on a ferry.
2. They hope to receive data from transmitters on the turtles' shells.
3. They intend to take the turtles to the United States for further research.

A-3 What information have the researchers received about the first group of turtles released?

1. Most of the first group of turtles are approaching Hawaii.
2. They have lost contact with all of the turtles.
3. One of the turtles had been found swimming near the international dateline.

A-4 What does the researcher say about the young turtles' coming back to Japan?

1. He says that they should be able to return to Japan but don't seem to do so.
2. He says that they usually float back to Japan on the sea current.
3. He says that they tend to stay near the coast of Japan before traveling in the Pacific.

A-5 What is the major concern of the researchers?

1. The batteries in the transmitters will not last long enough.
2. There is a great danger of most of the turtles being attacked by sharks in the ocean.
3. The average sea turtle only lives for about one and a half years.

2. 次の英文 A-6 から A-9 までは、全世界的な海上遭難安全制度に関する国際文書の規定文の趣旨に沿って述べたものである。この英文を読み、それに続く設問に答えなさい。解答は、それぞれの設問に続く選択肢 1 から 3 までの中から、答えとして最も適切なものを一つ選び、その番号のマーク欄を塗りつぶしなさい。

A-6 A station or a rescue coordination center which receives a distress alert shall initiate the transmission of a shore-to-ship distress alert relay addressed, as appropriate, to all ships, to a selected group of ships or to a specific ship by satellite and/or terrestrial means.

<注> terrestrial 地上の

(設問) What must a station or a rescue coordination center do when it receives a distress alert?

1. It must always send the distress alert relay to all ships using satellite and/or terrestrial means.
2. It must select to which ships to send the distress alert relay and the means to be used.
3. It must transmit the distress alert relay by satellite if the relay is addressed to only one ship.

A-7 A coast station using digital selective calling to acknowledge a distress call shall transmit the acknowledgement on the distress calling frequency on which the call was received and should address it to all ships.

(設問) How must the acknowledgement of the distress call be sent by the coast station?

1. It shall be sent to every ship on any of the distress calling frequencies.
2. It shall be sent to all ships on a different frequency from that of the original distress call.
3. It shall be sent to all ships on the same frequency as the original distress call.

A-8 The preferred frequencies in radiotelephony for on-scene communications are 156.8 MHz and 2182 kHz. The frequency 2174.5 kHz may also be used for ship-to-ship on-scene communications using narrow-band direct-printing telegraphy in the forward error correcting mode.

<注> forward error correcting mode 単方向誤り訂正モード

(設問) Which frequencies should be used for on-scene communications?

1. Only the frequencies 156.8MHz and 2182 kHz may be used for on-scene communications.
2. 2174.5 kHz may be used for on-scene telegraphy but it is generally better to use 156.8 MHz or 2182 kHz in radiotelephony.
3. The frequency 2174.5 kHz should be avoided at all times for narrow-band on-scene communications.

A-9 Homing signals are those locating signals which are transmitted by mobile units in distress, or by survival craft, for the purpose of providing searching units with a signal that can be used to determine the bearing to the transmitting stations.

(設問) What is the main purpose of homing signals?

1. Homing signals are used to help searching units find the location of mobile units in distress or survival craft.
2. The main purpose of homing signals is for searching units to transmit a signal to units in distress.
3. Mobile units in distress need homing signals to determine the bearing of transmitting stations.

3. 次の設問 B-1 の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語を、その設問に続く選択肢 1 から 10 までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を塗りつぶしなさい。

（設問）

B-1 オーストラリアのグレートバリアリーフを世界の自然界の不思議のひとつにする鮮やかに彩られた珊瑚が、上昇する海水温度のため、2050 年までにはその殆どが死滅してしまうだろうと、最近のニュースは伝えている。

The brightly colored corals that (ア) Australia's Great Barrier Reef (イ) of the world's natural (ウ) will be mostly dead by 2050 (エ) to rising sea temperatures, (オ) to a recent news report.

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|--------------|------------------|--------------|
| 1. according | 2. because | 3. owing |
| 4. exactly | 5. make | 6. one |
| 7. show | 8. unfortunately | 9. wonderful |
| 10. wonders | | |

4. 次の設問 B-2 の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語句を、その設問に続く選択肢 1 から 10 までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を塗りつぶしなさい。

（設問）

B-2 本船は、エンジンの故障のため航行できません。修理を試みてみますが、うまく行かないかもしれません。

Our ship (ア) (イ) to sail due to engine trouble. We will (ウ) to make (エ) but (オ) not succeed.

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|------------|--------------|---------|
| 1. can | 2. it fixes | 3. is |
| 4. not | 5. intending | 6. will |
| 7. might | 8. repairs | 9. try |
| 10. unable | | |

5. 次の設問 B-3 の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語を、その設問に続く選択肢 1 から 10 までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を塗りつぶしなさい。

（設問）

B-3 航空機局相互間の通信においては、通信の継続時間は、航空局が介入しない限り、受信中の局が調整しなければならない。

In communications between aircraft stations, the (ア) of communication shall be (イ) (ウ) the aircraft station (エ) is receiving (オ) an aeronautical station intervenes.

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|---------------|-----------|---------------|
| 1. adjustment | 2. by | 3. controlled |
| 4. duration | 5. during | 6. it |
| 7. of | 8. unless | 9. which |
| 10. without | | |