



2025 年度 後期

# 高 3 英語総合 SA

〔第 8 講 テストゼミ〕

解答時間 30 分

生徒氏名 [       ]

担当講師 [       ]

【1】 次の英文を読んで、以下の設問に答えなさい。

Sailors have long known that whales make strange musical noises. Yet it wasn't until recording techniques were developed that anyone could listen to whale songs ( (a) ) their entirety. It was, in fact, military science that first collected the evidence. ( (b) ) the cold war, the US government conducted secret research into how sound travels underwater. The Americans were looking for ways to locate enemy submarines, and to hide their own. They knew that sound travels five times faster underwater than it does through the air, but they also found that it travels at different speeds in different layers of the ocean, fastest of all at the bottom. ①This may seem surprising, but as David Rothenberg explains: “②The denser the medium, the faster the molecules shake as the sound wave goes through it.”

( (c) ) listening to the ocean, the scientists heard low \*moaning and rumbling noises that they gradually learned to identify (and dismiss) as the sound of living creatures. These turned out to be great whales communicating with one another in the deep sound channels, where their utterances travelled ( (d) ) hundreds, even thousands of miles.

By listening to \*\*humpback whale songs through underwater microphones, scientists discovered that whales do not cry and moan randomly. The songs — always sung by males — had long-range structures, sometimes lasting for hours. They were shaped like any good musical composition, with \*\*\*themes, phrases, climaxes, resolution, and dying away. Moreover, the songs were repeated after a pause. They seemed to be transmitted to other whales living in the same area who sang them too. Different groups in other oceans had their own distinctive songs. The songs were too long and formal merely to be passing on simple information about females, food or the ocean floor. Strangest of all, they underwent slow but continuous evolution. Researchers who came back summer after summer noticed subtle changes in the songs each year, all the whales in the area picking up the changes. This means that whales are very different from birds, those other well-known singers of the natural world, whose songs remain stable over time. Whereas today's nightingales may sound very similar to the ones that Shakespeare heard, a whale researcher will complain that the great whale singers of the 1970s have gone now, and that the music favored by today's youngsters is entirely different.

③Whales became big, so to speak, when endangered species caught our imagination in the 70s. The idea that the world's largest creatures were singing at the bottom of the ocean had great emotional power. Some musicians even went out in boats to play to them. Did the whales respond? The musicians thought so. It was all meant to be a homage, an in-

ter-species get-together, but it had to stop when the Marine Mammal Protection Act forbade anyone from harassing the animals and classed music as a form of harassment.

Some people warn that because of motorized shipping and \*\*\*\*seismic exploration of the ocean floor by oil companies, the seas are getting much noisier. There is evidence that whales are trying to sing louder to make themselves heard; furthermore, recent sonar tests have been known to kill whales.

We know that whale songs are complex messages, but we still don't know what they mean or what we could learn from them, and now they may be ( e ) threat.

[注]

\*moaning and rumbling うめき, うなる

\*\*humpback

whale ザトウクジラ

\*\*\*themes, phrases, climaxes, resolution テーマ, 楽句, クライマックス, (不協和音の) 解決

\*\*\*\*seismic 地震(性)の

設問(1) 本文中の(a)~(e)にあてはまるもっとも適当な語を, (i)~(f)から一つ選び, 記号で答えなさい(同じ語を二度選んではいけません)。

- (i) across            (ii) while            (iii) against            (iv) in  
(v) during            (vi) at            (vii) among            (viii) under

設問(2) 本文中の下線部①の This が指し示す内容を, 日本語でわかりやすく説明しなさい。

設問(3) 本文中の下線部②の意味を日本語で表しなさい。

設問(4) 本文では, クジラと鳥はどのような点で異なると述べているか。日本語でわかりやすく説明しなさい。

設問(5) 本文中の下線部③にもっとも近い意味の表現を, (i)~(iv)の中から一つ選び, 記号で答えなさい。

- (i) Whales became mature.            (ii) Whales grew larger.  
(iii) Whales' numbers increased.            (iv) Whales attracted a lot of attention.  
(v) Whales came to live longer.

設問(6) 本文の内容に合うものを(イ)～(ホ)の中から一つ選び、記号で答えなさい。

- (イ) Researchers had long suspected that whales communicated with each other before the recording techniques were fully developed for underwater research.
- (ロ) Years of intensive research on whale songs uncovered that they are related to mating rituals.
- (ハ) Female whales sing in a very different way from male whales.
- (ニ) Some musicians intended to harass whales by playing music underwater.
- (ホ) It is not allowed to play music to whales any more because music is thought to disturb them.

# 解答用紙

名前 \_\_\_\_\_

【1】

設問 1

a)	b)	c)	d)	e)
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設問 2

設問 3

設問 4

設問 5

設問 6