SECTION 4

File nghe: TẠI ĐÂY

SECTION 4 ***Questions 31–40***

Complete the notes below.

*Write **ONE WORD ONLY** for each answer.*

Marine renewable energy (ocean energy)

Introduction

More energy required because of growth in population and **31** .....

What's needed:

- renewable energy sources
- methods that won't create pollution

Wave energy

Advantage: waves provide a **32** ..... source of renewable energy

Electricity can be generated using offshore or onshore systems

Onshore systems may use a reservoir

Problems:

- waves can move in any **33** .....
- movement of sand, etc. on the **34** ..... of the ocean may be affected

Tidal energy

Tides are more **35** ..... than waves

Planned tidal lagoon in Wales:

- will be created in a **36** ..... at Swansea
- breakwater (dam) containing 16 turbines
- rising tide forces water through turbines, generating electricity
- stored water is released through **37** ....., driving the turbines in the reverse direction

Advantages:

- not dependent on weather
- no **38** ..... is required to make it work
- likely to create a number of **39** .....

Problem:

- may harm fish and birds, e.g. by affecting **40** ..... and building up silt

Ocean thermal energy conversion

Uses a difference in temperature between the surface and lower levels
Water brought to the surface in a pipe

Key answer

SECTION 4

Dạng bài tập: - Questions 31-40: Note completion (ONE WORD ONLY)

1. Industry

Bước 1	Xác định loại thông tin cần nghe	More energy required because of growth in **population and 31** …… sau giới từ "in" và cùng từ loại với "population" → Danh từ
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"Demand is rising rapidly, because of the world's increasing **population and** expanding industry." Paraphrase: required ~ Demand Growth ~ increasing ~ expanding
Bước 3	Nghe đáp án	**industry**

2. Constant

Bước 1	Xác định loại thông tin cần nghe	waves provide a **32** …… source of renewable energy trước danh từ → Tính từ/ Phân từ
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"First, **wave energy** … This form of energy has plenty of potential, as the **source** is constant"
Bước 3	Nghe đáp án	**constant**

3. Direction

Bước 1	Xác định loại thông tin cần nghe	Problem: waves can move in any **33** …… sau giới từ "in" và từ "any" → Danh từ
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"But the **problem** with ocean waves is that they're erratic, with the wind making them **travel** in **every** direction." Paraphrase: Move ~ travel Any: bất kỳ ~ every: tất cả
Bước 3	Nghe đáp án	direction

4. Floor

Bước 1	Xác định loại thông tin cần nghe	movement of **sand**, etc. on the **34** …… of the ocean **may be affected** sau mạo từ "the" → Danh từ
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"Another drawback is that **sand** and other sediment on the ocean floor **might be stopped** from flowing normally" Paraphrase: may be affected ~ might be stopped
Bước 3	Nghe đáp án	floor

5. Predictable

Bước 1	Xác định loại thông tin cần nghe	Tides are more **35** …… than waves Sau động từ to be "are" và "more … than" → dạng so sánh hơn → một tính từ dài

Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"One major advantage of using the **tide, rather than waves,** as a source of energy is that it's predictable"
Bước 3	Nghe đáp án	predictable

6. Bay

Bước 1	Xác định loại thông tin cần nghe	Planned tidal lagoon in Wales: will be created in a **36** …… at Swansea sau mạo từ "a" → danh từ
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"One current **plan** is to **create** a **tidal lagoon** on the coast of Wales. This will be an area of water within a bay at Swansea,"
Bước 3	Nghe đáp án	bay

7. Gates

Bước 1	Xác định loại thông tin cần nghe	stored water is released through **37** ……, Sau giới từ "through" → danh từ (chưa có mạo từ nên là Danh từ không đếm được hoặc đếm được số nhiều)
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"Then, in order to **release the stored water**, gates in the breakwater are opened"
Bước 3	Nghe đáp án	gates

8. Fuel

Bước 1	Xác định loại thông tin cần nghe	no **38** …… is required to make it work câu thiếu chủ ngữ → điền Danh từ
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"the turbines are operated without the need for fuel," Paraphrase: work ~ operated no …… is required ~ without the need for
Bước 3	Nghe đáp án	fuel

9. jobs

Bước 1	Xác định loại thông tin cần nghe	likely to **create** a number of **39** …… sau "a number of" → danh từ
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"would **create** more than 2,000 jobs" a number of: nhiều ~ 2,000
Bước 3	Nghe đáp án	jobs

10.migration

Bước 1	Xác định loại thông tin cần nghe	may harm fish and birds, e.g. by affecting **40** …… Sau ngoại động từ "affect" → Danh từ
Bước 2	Nghe thông tin liên quan và các cách để paraphrase những thông tin đó	"lagoons might harm both fish and birds, for example by disturbing migration patterns" Paraphrase: e.g = for example

		by affecting: làm ảnh hưởng ~ by disturbing: làm rối loạn
Bước 3	Nghe đáp án	migration

Tape Script

SECTION 4

Producing enough energy to meet our needs has become a serious problem. Demand is rising rapidly, because of the world's increasing population and expanding industry. Burning fossil Q31 fuels, like gas, coal and oil, seriously damages the environment and they'll eventually run out. or a number of years now, scientists have been working out how we can derive energy from

renewable sources, such as the sun and wind, without causing pollution. Today I'll outline marine renewable energy - also called ocean energy - which harnesses the movement of the oceans.

Marine renewable energy can be divided into three main categories: wave energy, tidal energy and ocean thermal energy conversion, and I'll say a few words about each one.

First, wave energy. Numerous devices have been invented to harvest wave energy, with names such as Wave Dragon, the Penguin and Mighty Whale, and research is going on to try and come up with a really efficient method. This form of energy has plenty of potential, as the source is constant, and there's no danger of waves coming to a standstill. Electricity can be generated using onshore systems, using a

reservoir, or offshore systems. But the problem with ocean waves is that they're erratic, with the wind making them travel in every direction. This adds to the difficulty of creating efficient technology: ideally all the waves would travel smoothly and regularly along the same straight line. Another drawback is that sand and other sediment on the ocean floor might be stopped from flowing normally, which can lead to environmental problems.

The second category of marine energy that I'll mention is tidal energy. One major advantage of using the tide, rather than waves, as a source of energy is that it's predictable: we know the exact times of high and low tides for years to come.

For tidal energy to be effective, the difference between high and low tides needs to be at least five metres, and this occurs naturally in only about forty places on Earth. But the right conditions can be created by constructing a tidal lagoon, an area of sea water separated from the sea.

One current plan is to create a tidal lagoon on the coast of Wales. This will be an area of water within a bay at Swansea, sheltered by a U-shaped breakwater, or dam, built out from the coast. The breakwater will contain sixteen hydro turbines, and as the tide rises, water rushes through the breakwater, activating the turbines, which turn a generator to produce electricity. Then, for three hours as the tide goes out, the water is held back within the breakwater, increasing the difference in water level, until it's several metres higher within the lagoon than in the open sea. Then, in order to release the stored water, gates in the breakwater are opened.

It pours powerfully out of the lagoon, driving the turbines in the breakwater in the opposite direction and again generating thousands of megawatts of electricity. As there are two high tides a day, this lagoon scheme would generate electricity four

times a day, every day, for a total of around 14 hours in every 24 - and enough electricity for over 150,000 homes.

This system has quite a lot in its favour: unlike solar and wind energy it doesn't depend on the weather; the turbines are operated without the need for fuej, so it doesn't create any greenhouse gas emissions; and very little maintenance is needed. It's estimated that electricity generated in this way will be relatively cheap, and that manufacturing the components would create more than 2,000 jobs, a big boost to the local economy.

On the other hand, there are fears that lagoons might harm both fish and birds, for example by disturbing migration patterns, and causing a build-up of silt, affecting local ecosystems.

There are other forms of tidal energy, but I'll go on to the third category of marine energy: ocean thermal energy conversion. This depends on there being a big difference in temperature between surface water and the water a couple of kilometres below the surface, and this occurs in tropical coastal areas. The idea is to bring cold water up to the surface using a submerged pipe. The concept dates back to 1881, when ...

SECTION 1

CARL: Hi, come and take a seat.

JULIE: Thank you.

CARL: My name's Carl Rogers and I'm one of the doctors here at the Total Health Clinic.

So I understand this is your first visit to the clinic? JULIE: Yes, it is.

CARL: OK, well I hope you'll be very happy with the service you receive here. So if it's alright with you I'll take a few details to help me give you the best possible service.

JULIE: Sure.

CARL: SO can I check first of all that we have the correct personal details for you? So

your full name is Julie Anne Garcia? JULIE: That's correct.

CARL: Perfect. And can I have a contact phone number?

JULIE: It's 219 442 9785.

CARL: OK, and then can I just check that we have the correct date of birth?

JULIE: October tenth. 1992.

CARL: Oh, I actually have 1991, I'll just correct that now. Right, so that's all good. Now I

just need just a few more personal details ... do you have an occupation, either full-time or part-time?

JULIE: Yes, I work full-time in Esterhazy's - you know, the restaurant chain. I started off

as a waitress there a few years ago and I'm a manager now. CARL: Oh I know thsm, yeah, they're down on 114th Street, aren't they?

JULIE: That's right.

CARL: Yeah, I've been there a few times. I just love their salads.

JULIE: That's good to hear.

CARL: Right, so one more thing I need to know before we talk about why you're here,

Julie, and that's the name of your insurance company. JULIE: It's Cawlev Life Insurance, that's C-A-W-L-E-Y.

CARL: Excellent, thank you so much.

CARL: NOW Julie, let's look at how we can help you. So tell me a little about what brought you here today.

JULIE: Well, I've been getting a pain in my knee, the left one. Not very serious at first,

but it's gotten worse, so I thought I ought to see someone about it. CARL: That's certainly the right decision. So how long have you been aware of this

pain? Is it just a few days, or is it longer than that? JULIE: Longer. It's been worse for the last couple of days, but it's three weeks since I

first noticed it. It came on quite gradually though, so I kind of ignored it at first.

CARL: And have you taken any medication yourself, or treated it in anyway?

JULIE: Yeah, I've been taking medication to deal with the pain, Tylenol, and that works

OK for a few hours. But I don't like to keep taking it. CARL: OK. And what about heat treatment? Have you tried applying heat at all?

JULIE: No, but I have been using ice on it for the last few days.

CARL: And does that seem to help the pain at all?

JULIE: A little, yes.

CARL: Good. Now you look as if you're quite fit normally?