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دائرة الامتحانات الرسمية		

	مسابقة في مادة اللغة الإنكليزية	الاسم:
	المدّة ساعتان و نصف	الرقم:

Part One: Reading Comprehension (Score: 11/20)

In the following selection the writer reports how scientists unlocked the secrets of the worst natural disaster in Cameroon, West Africa. Read it carefully, and then answer the questions that follow.

One of the Strangest Natural Disasters of the 20th Century

1   On the morning of August 22, 1986, a man hopped onto his bicycle and began riding from Wum, a village in Cameroon, toward the village of Nyos. On the way, he noticed an antelope lying dead next to the road. A short distance later, he noticed two dead rats, and further on, a dead dog and other dead animals. Soon the man came upon a group of huts. He decided to check if anyone there knew what had happened to the animals. But as he walked up to the huts, he was shocked to see dead bodies everywhere. He did not find a single person still alive in the huts. The man threw down his bicycle and ran all the way back to Wum.

2   Wum and Nyos are in a remote part of Cameroon, so it took two days for a medical team to arrive after local officials called the governor to report the strange occurrence. The doctors found a catastrophe far greater than they could have imagined. Overnight, something had killed nearly 1,800 people, plus more than 3,000 cattle and countless wild animals, birds, and insects—in short, every living creature for kilometers around.

3   What could have caused so many deaths in such a short span of time? When news of the disaster reached the outside world, scientists from France, the United States, and other countries arrived to help the country's own scientists figure out what had happened. The remains of the victims offered few clues. There was no evidence of bleeding, physical trauma, or disease, and no sign of exposure to radiation, chemical weapons, or poison gas. The victims apparently just blacked out, fell over, and died.

4   One of the first important clues was the distribution of the victims across the landscape: the deaths had all occurred within about 20km of Lake Nyos. Both the number of victims and the percentage of fatalities increased as the scientists got closer to the lake. But it was the lake itself that provided the biggest and strangest clue of all: its normally clear blue waters had turned a deep, murky red.

5   Lake Nyos is roughly $0.6km^2$ in surface area and has a maximum depth of 207m. It is known as a "Crater Lake"—it was formed when the crater of a long-extinct volcano was filled with water. As the scientists started to collect evidence, they began to form a theory that centered around the large amount of CO_2 in the lake. The volcano that formed Lake Nyos may have been long extinct, but the magma chamber that fed it was still active deep below the surface of the Earth. And it was still releasing carbon dioxide gas—not just into Lake Nyos, but into the surrounding environment as well.

6   But what was unusual about Lake Nyos was not that there was CO_2 in the lake; that happens in lakes all over the world. What was unusual was that the CO_2 had apparently never left—instead of bubbling to the surface and dissipating into the air, the CO_2 was accumulating at the bottom of the lake. As the scientists soon discovered, the waters of Lake Nyos are among the most still in the world; tall hills surround the lake, blocking the wind and causing the lake to be unusually consistent in temperature from the surface to the bottom. And because Lake Nyos is in a tropical climate that remains hot all year round, the water temperature does not vary much from season to season, either. Lastly, because the lake is so deep, even when the surface is disturbed, very little of the agitation finds its way to the lake floor.

7   To confirm their theory, scientists had to find other instances of similar eruptions in the past. It did not take very long to find one, and they did not have to look very far, either. Two years earlier, on August 15, 1984, a loud boom was heard coming from Lake Monoun, a crater lake just 98km southeast of Lake Nyos. In the hours that followed, 37 people died mysteriously, including a group of 17 people who died while walking to work when they came to a low point in the road—just the place where CO_2 would have settled

after being released from the lake. The incident was small enough, so it did not attract much attention from the outside world.

8 In the months following the disaster at Lake Nyos, the scientists continued to monitor the lake's CO_2 levels and concluded that their theory was correct. Eyewitness accounts from people who were high enough in the hills above the lake to survive the eruption described how the lake began bubbling strangely on August 17, causing a misty cloud to form above the surface of the water. Then without warning, on August 22, the lake suddenly exploded; water and gas shot about one hundred meters into the air. The CO_2 had taken up so much space in the lake that when it was finally released, the water level dropped more than one meter. By measuring the change in depth, the scientists estimated that the lake had released 1.2 cubic kilometers of CO_2—enough to fill 10 football stadiums—in as little as 20 seconds.

9 Cattle herders graze their animals on the hills above Lake Nyos, and after the lake ejected as much as 80% of its massive store of CO_2 in one big burst, dead cattle were found as high as 90m above the lake, indicating that the suffocating cloud shot at least that high before settling back onto the surface. Then the gas poured over the crater's edge into the valleys below, traveling at an estimated 75km per hour. For people living in the villages closest to the lake, death was almost inevitable.

Questions

A. Answer each of the following questions in 2-4 complete sentences of your own words.
1. In reference to Paragraph 2, what was shocking about the doctors' findings? **(Score: 0.5)**
2. Identify **two** main clues the remains of Nyos' victims could provide to scientists. **(Score: 01)**
3. Explain how Lake Nyos' nature contributed to the disaster. **(Score: 01)**
4. Infer one measure that the locals and another that the government could have taken to avoid the devastating consequences of the Nyos' disaster. **(Score: 01)**

B. Answer the following questions in complete sentences.
1. What **two** different nouns best reflect the mood Paragraph 1 evokes in the readers? Justify. **(Score: 01)**
2. Identify **two** purposes of the opening question in Paragraph 3. Justify. **(Score: 01)**
3. What pattern of organization is used in Paragraph 8? Justify. **(Score: 01)**
4. Identify **two** different types of evidence the writer uses to achieve credibility. Support your answer with examples. **(Score: 01)**

C. Refer to Paragraphs 2, 7, and 8 to fill in the table below with the main event related to each date provided. Write your answers as phrases, and don't forget to copy the table in your booklet. **(Score: 01.5)**

Date	Main Event
August 24, 1986	
August 15, 1984	
Months after August 22, 1986	

D. The following statements are false because they misinterpret the meaning stated or conveyed in the selection above. Rewrite them correctly. **(Score: 01)**
1. The local scientists worked hard to unlock the mystery of Nyos' disaster.
2. By measuring the temperature of the lake, the scientists estimated how much CO_2 was released.

E. Scan Paragraphs 1, 3 and 6 to find words/phrases that almost have the following meanings. **(Score: 01)**
1. *small and simple roofed shelters*   3. *to lose consciousness*
2. *body wound or shock produced by violence*   4. *characterized by humidity and heat*

Part Two: Writing **(Score: 09/20)**

The global community in the form of international organizations as well as local charities, aid workers, and non-governmental organizations (NGOs) play an important role during and after crises caused by natural disasters. **In a well-organized essay of 250-300 words, discuss the above statement by highlighting two roles (social, emotional, medical, physical, etc.) played by these organizations in saving lives.** See that, in your introduction, you put your reader in the general atmosphere of your topic and clearly provide a thesis statement, and that each of your body paragraphs starts with a topic sentence which you back up with relevant supporting details. Draft, revise and proofread your essay. Your writing will be assessed for ideas, language, style and tidiness. [Score: 05 for ideas and organization, 03 for language and style, and 01 for tidiness and legible handwriting]

Part of Question	Answer Key	Mark
I-A-1	The doctors were shocked by the huge number of deaths among humans and animals (1,800 people and 3000 cattle) and by the short time during which the whole event had occurred (overnight). ➔ Full answer **N.B:** Mentioning the factor of the numbers alone ➔ **0.5** Mentioning the short time alone ➔ **0.25**	**0.5**
I-A-2	First, the remains of the victims revealed that certain factors such as physical violence, diseases, radiation, chemical weapons and poisonous gas should be excluded from any theory. Second, the way they were distributed within 20km of Lake Nyos helped scientists relate the strange occurrence to the lake itself. Other possible clues: People died directly without any physical suffering (or after fainting). **N.B: 0.5 for each**	**01**
I-A-3	First, the lake itself was formed by an extinct volcano, the fact that led to the existence of an active magma chamber. Second, the lake's water is consistently hot. Third, the depth of the lake (207m) keeps the deep water undisturbed. All these factors were behind the accumulation of CO_2 at the bottom of the lake, which later caused the eruption of the poisonous cloud. **N.B: 0.25 for each feature and 0.25 for the result**	**01**
I-A-4	The government could have taken the eruption of Lake Monoun more seriously to detect similar occurrences in nearby lakes such as Lake Nyos. Second, the local people should have taken the strange bubbles from the lake, five days before the eruption, into consideration and should have informed the government as soon as the phenomenon occurred. If the two clues were seriously studied or at least reported, the disaster could have been avoided. **N.B: 0.5 for the result and 0.25 for each clue**	**01**
I-B-1	The mood that dominates Paragraph 1 is that of horror/panic and eagerness/curiosity. The images of dead bodies everywhere and the repetition of the word "dead" ("lying dead", "two dead rats", "dead dog", "dead animals", and "dead bodies") cause a mood of horror/panic. Second, since no single clue was mentioned in the paragraph, a sense of eagerness/curiosity is provoked regarding the reason behind the death of many people and animals. **N.B: 0.5 for each noun with its justification**	**01**
I-B-2	First, the question introduces the main idea of the paragraph (or the focus of the whole selection): investigating the causes of death. Second, it prepares the readers	**01**

	for the answer or the reasons behind that strange disaster, which will be presented in Paragraphs 3 through 9. **N.B: 0.5 for each**	
I-B-3	The pattern is chronological/time order because the writer provides details and events using a time sequence. He starts with the event of monitoring the lake's CO_2 that confirmed the scientists' theory mentioned before. Then he lists past events in a time order: eye-witnessing the strange bubbling of the lake, happening of the explosion, measuring the change in the lake's depth, etc. The clues that help reveal the pattern are "In the months following", August 17", "Then", "August 22", "when", and "20 seconds". **N.B: 0.25 for the pattern and 0.75 for the explanation**	**01**
I-B-4	First, the writer uses specific names and dates such as in Paragraphs 1 and 3: "August 22, 1986", "Wum", "Cameroon", "France", and "United States". Second, he uses numbers and statistics such as in Paragraphs 2 and 9: "1,800", "3,000", "80%", and "90". Third, he provides facts about the lake and all its geographical features as in Paragraphs 5 and 6. **N.B: Two are enough; 0.5 for each type with its examples; other types with their accurate examples are accepted**	**01**
I-C	<table><tr><th>Date</th><th>Main Event</th></tr><tr><td>**August 24, 1986**</td><td>Arrival of the doctors to the area of disaster (Nyos) Or: Discovery of how huge the catastrophe was in Nyos by the doctors</td></tr><tr><td>**August 15, 1984**</td><td>Eruption of Lake Monoun and the death of 37 people</td></tr><tr><td>**Months after August 22, 1986**</td><td>Continuity of monitoring CO_2 by the scientists Or: Collection of eyewitnesses accounts about the strange bubbling of the lake</td></tr></table> **(0.5 for each; answers should be phrases)**	**1.5**
I-D-1	The local <u>and international</u> scientists worked hard to unlock the mystery of Nyos disaster.	**0.25**
I-D-2	By measuring the <u>change in the depth of</u> the lake, the scientists estimated how much CO_2 was released.	**0.25**
I-E-1	huts	**0.25**
I-E-2	trauma	**0.25**
I-E-3	black out	**0.25**
I-E-4	tropical	**0.25**
II-A	Ideas and organization	**05**
II-B	Language and style	**03**
II-C	Tidiness and legible handwriting	**01**