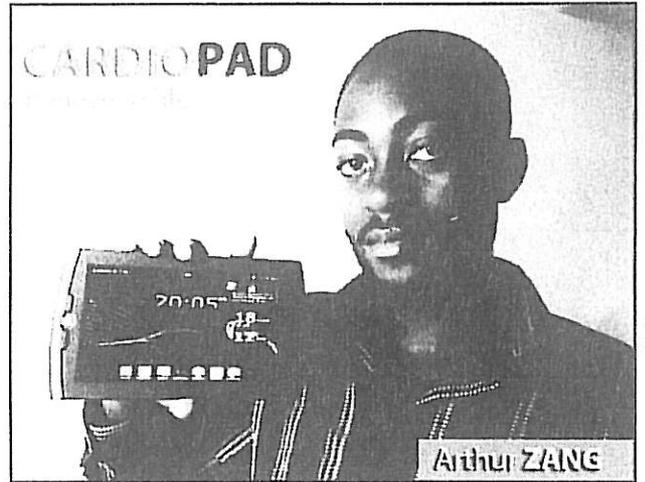




2	مدة الإنجاز	اللغة الإنجليزية	المادة
2	المعامل	كل مسالك الشعب العلمية والتقنية والأصيلة	الشعبة أو المسلك

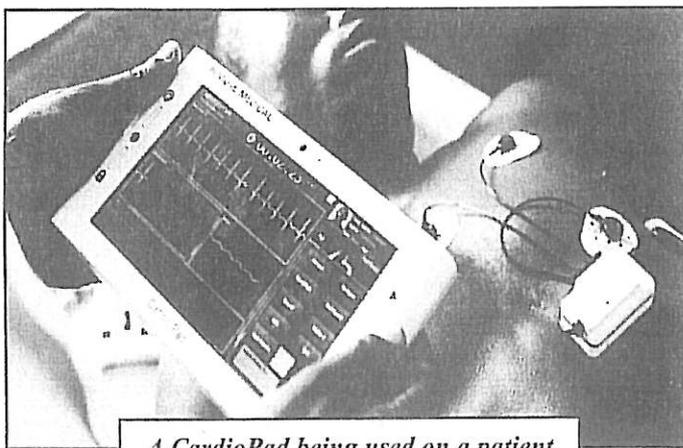
[1] Arthur Zang, a 24-year-old Cameroonian computer engineer, invented the CardioPad. The idea for this invention came to his mind while he was watching a television programme about electrocardiographs during a visit to a hospital in 2007.

[2] The CardioPad is a tablet computer. It diagnoses patients with heart diseases in remote areas where access to medical services is very restricted. When a medical examination is performed on a patient in a remote village, the results are transmitted from the nurse's tablet to that of the doctor who then interprets **them**. The device is believed to be Africa's first medical tablet that can send the results of cardiac tests to a cardiologist via internet connection. The heart specialist makes a diagnosis and sends it back with a prescription to the nurse treating the patient.



[3] "When I decided to design the tablet, I didn't have the knowledge because I'm basically a computer science engineer. I learned a lot from an online free programme on electronics provided by the Indian Institute of Technology. The funding of my project was difficult. I went to the banks, but they wanted all sorts of guarantees. So I posted a video about my project on Facebook to raise funds." This led to a \$20,000 grant from the Cameroonian government, which Zang used to produce 20 tablets, two of **which** are being tested in hospitals in Cameroon.

[4] The Cameroonian scientific community has recognized the CardioPad as extremely effective. Thanks to this device, many patients living in remote areas do not have to travel to urban centres to seek medical examinations. Zang believes that his invention could save numerous human lives.



A CardioPad being used on a patient

[5] Mafo Abeni, a 55-year-old heart patient in a rural area of Cameroon, said "I've had cardiovascular disease for about a year now. It is too costly and difficult for me to see a heart specialist in the city; the CardioPad saves me time and money."

[6] Mr. Zang says he has been contacted by private investors. But he is more interested in investors who share his vision, which is not of money, but of better ways to help improve people's lives.



خاص بكتابة الامتحان	الامتحان الوطني الموحد للبكالوريا الدورة العادية 2016		المملكة المغربية وزارة التربية الوطنية والتكوين المهني المركز الوطني للتقويم والامتحانات والتوجيه	
رقم الامتحان	NS 12	الموضوع - B ★		
الاسم الشخصي والمائلي		تاريخه و مكان الازدياد		
2	المعامل	2	مدة الإنجاز	اللغة الإنجليزية كل مسالك الشعب العلمية والتقنية والأصيلة
				المادة الشعبة و المسلك



خاص بكتابة الامتحان	النقطة النهائية على 20: بالارقام والحروف (على المصحح التأكد من أن النقطة النهائية هي على 20)	اللغة الإنجليزية: كل مسالك الشعب العلمية والتقنية والأصيلة	المادة الشعبة و المسلك
5	الصفحة: 2 على	اسم المصحح و توقيعه:	ورقة الإجابة NS 12

I. COMPREHENSION (15 POINTS)

BASE ALL YOUR ANSWERS ON THE TEXT.

A. CHOOSE THE BEST TITLE FOR THE TEXT. (2 pts)

1. A new medicine for heart diseases
2. A new way to manage hospitals
3. A new medical invention

The best title is



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B. ARE THESE STATEMENTS TRUE OR FALSE? JUSTIFY. (3 pts)

1. Arthur Zang got knowledge of electronics online.
.....
2. The banks wanted to finance Zang's project without conditions.
.....
3. Mafo Abeni is positive about the CardioPad.
.....

C. ANSWER THESE QUESTIONS. (3 pts)

1. How did Zang get the idea of the CardioPad?
.....
2. What does the heart specialist do with the information he/she receives from the nurse?
.....
3. How did Zang collect money for his project?
.....

D. COMPLETE THE FOLLOWING SENTENCES. (2 pts)

1. With the CardioPad, heart patients in distant areas no longer need to
2. Zang is not interested in making money, but

K

لا يكتب أي شيء

في هذا الإطار

5

الصفحة: 3 على

الامتحان الوطني الموحد للبكالوريا - الدورة العادية 2016 - الموضوع
مادة: اللغة الإنجليزية - كل مسالك الشعب العلمية والتقنية والأصيلة - NS 12

B

E. FIND IN THE TEXT WORDS OR PHRASES THAT MEAN THE SAME AS (3 pts)

1. limited (paragraph 2) :
2. look for (paragraph 4) :
3. expert (paragraph 5) :

F. WHAT DO THE UNDERLINED WORDS IN THE TEXT REFER TO? (2 pts)

1. them (paragraph 2) :
2. which (paragraph 3) :

II. LANGUAGE (15 POINTS)

A. GIVE THE CORRECT FORM OF THE WORDS IN BRACKETS. (2 pts)

1. Morocco was the first country in the world to recognise the (independent) of the USA.
2. Developing (renew) energy is among the priorities of the Moroccan government.

B. FILL IN THE GAPS WITH APPROPRIATE WORDS OR PHRASES FROM THE LIST. (2 pts)

1. Many in the United States have been struck by the hurricane this year.

problems - disasters - areas

2. MSF Médecins Sans Frontières.

makes up - stands for - calls for

C. FILL IN THE GAPS WITH APPROPRIATE WORDS OR PHRASES FROM THE LIST. (2 pts)

1. Moha Oulhoucine, everyone calls "The Maestro", died in February 2016.

whose - whom - which

2. Many people today can't imagine without their mobile phones.

to live - living - will live



H

لا يكتب أي شيء في هذا الإطار



5

الصفحة: 4 على

الامتحان الوطني الموحد للبكالوريا - الدورة العادية 2016 - الموضوع
مادة: اللغة الإنجليزية - كل مسالك الشعب العلمية والتقنية والأصيلة - NS 12

B

D. PUT THE VERBS IN BRACKETS IN THE CORRECT TENSE. (2 pts)

- By June 2018, the workers (complete) the high-speed rail line between Tangier and Casablanca.
- Leila first (meet) her husband when she was at university in 1996.

E. REWRITE THE SENTENCES BEGINNING WITH THE WORDS GIVEN. (3 pts)

- Ahmed Sefrioui wrote *La Boîte à Merveilles* in 1954.
La Boîte à Merveilles
- Despite being an expert, Jim couldn't recover his files from his hard disk.
Although Jim
- We lost the game because our goalkeeper was not in good physical condition.
If

F. MATCH EACH EXPRESSION WITH ITS APPROPRIATE FUNCTION. (2 pts)

Expressions	Functions
1. "Karim will definitely join us this evening."	a. expressing regret
2. "I shouldn't have tried to fix the computer myself."	b. expressing apology
	c. expressing certainty
	d. expressing opinion

1. 2.

G. WRITE APPROPRIATE RESPONSES TO THE FOLLOWING SITUATIONS. (2 pts)

- Reading books is better than watching movies.
You (express your opinion) :
- Your friend can't decide whether to buy a tablet or a laptop.
You (give advice) :

11

تصحيح إمتحان البكالوريا 2016 – كل مسالك الشعب العلمية و التقنية و
الأصيلة

I. COMPREHENSION. (15 points)

A. The best answer:

A new medical invention

B. True / False

1. True. "I learned a lot from an online free program on electronics provided by the Indian Institute of Technology"
2. False. "I went to the banks, but they wanted all sorts of guarantees"
3. True. "the Cardio Pad saves me time and money"

C. Answer these questions.

1. While he was watching a television program about electrocardiographs during a visit to a hospital in 2007.
2. The heart specialist makes a diagnosis and sends it back with a prescription to the nurse treating the patient.
3. He posted a video about his project on Facebook to raise funds.

D. Complete the sentences.

- 1- travel to urban centers to seek medical examinations
- 2- but of better ways to help improve people's lives.

E. Words meaning the same as

1. Restricted.
2. Seek
3. Specialist.

F. Words reference

1. The results.
2. Tablets.

II. Language

A.

1. The independence
2. Renewable.

B.

1. Areas.
2. Stands for.

C.

1. Whom.
2. Living.

D.

1. Will have completed
2. Met.

E.

1. La boîte à merveilles was written by Ahmed Sefrioui.
2. Although Jim was an expert, he couldn't recover his files from his hard disk.
3. If our goal keeper had been in a good physical condition, we wouldn't have lost the game.

F.

1. Expressing certainty.
2. Expressing regret.

G.

1. Any sentence expressing opinion is accepted.
2. Any sentence expressing opinion is accepted.