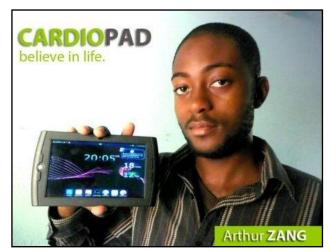
[1] Arthur Zang, a 24-year-old Cameroonian computer engineer, invented the CardioPad. The idea for this invention came to his mind while he was watching a television programme about electrocardiographs during a visit to a hospital in 2007.

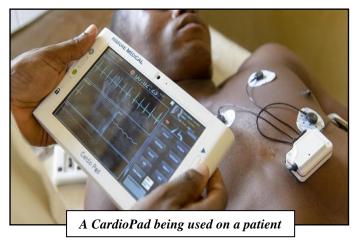
[2] The CardioPad is a computer tablet. It diagnoses patients with heart diseases in remote areas where access to medical services is very restricted. When a medical examination is performed on a patient in a remote village, the results are transmitted from the nurse's tablet to that of the doctor who 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 centers to seek medical examinations. Zang believes that his invention could save numerous human lives.



[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.

Adapted from: www.rolexawards.com & voanews.com

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ىتحان	كتابة الاه		201	الامتحان الوطني المو الدورة العادية 6	ىية سنية كالا0، كالا0، ا 45×0×2، ا سنى كالا0، كالا0، كالا0، كالا0، كالا0، كالا0، كالا0، كالا	المملكة المفر وزارة التربية الول والتكوين المم
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5	2 على	الصفحة:		سم المصحح و توقيعه:	ورقة الإجابة	NS 12
I. CO	MPREHEN	SION	(15 POINTS)		
			BASE ALL YO	UR ANSWERS ON THE TEX	KT.	
A. C]	HOOSE TH	E BEST	TITLE FOR TH	E TEXT. (2 pts)		
			heart diseases	()		
2.	A new way	to manag	ge hospitals			
3.	A new med	lical inver	ntion			
	The bes	t title is.				
B. ARE THESE STATEMENTS TRUE OR FALSE? JUSTIFY. (3 pts)						
Zang got knowledge of electronics online.						
2.	The banks	wanted to		roject without conditions.		• • • • • • • • •
3.	Mafo Aben	i is positi	ve about the Card	ioPad.		• • • • • • •
C. A	NSWER TH	HESE QU	JESTIONS.	(3 pts)		
1.	How did Z	ang get th	ne idea of the Car	dioPad?		
2.	2. What does the heart specialist do with the information he/she receives from the nurse?					
3.	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.	2. Zang is not interested in making money, but					

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 -
E. FIND IN	N THE TEXT WOR	DS OR PHRASES THAT MEAN THE SAME AS (3 pts)
1. limited	(paragraph 2):	
2. look for	(paragraph 4):	
3. expert	(paragraph 5):	
F. WHAT D	OO THE UNDERLIN	NED WORDS IN THE TEXT REFER TO? (2 pts)
1. them	(paragraph 2):	
2. which	(paragraph 3):	•••••
II. LANGUA	AGE (15 POINTS	5)
A. GIVE TH	HE CORRECT FOR	M OF THE WORDS IN BRACKETS. (2 pts)
	•	in the world to recognise the (independent) of the USA 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	s - disasters - areas
2. MSF	M	édecins 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 Ou	ılhoucine,	everyone calls "The Maestro", died in February 2016.
	whose -	whom - which
2. Many peo	ople today can't imag	ine without their mobile phones.
	to live	living - will live

لا يكتب أي شيء في هذا الإطار

	4 ∫على 5	الصفحة:	ة 2016 - الموضوع نية والأصيلة - NS 12 -	- الدورة العادياً عب العلمية والتقا	الامتحان الوطني الموحد للبكالوريا مادة:اللغة الإنجليزية — كل مسالك الث	
D. P	PUT THE VERBS	S IN BRACKI	ETS IN THE CORRECT	TENSE. (2	pts)	
	1. By June 2018, the workers (complete) the high-speed rail line between Tangier and Casablanca.					
2. I	Leila first (meet) her husband when she was at university in 1996.					
E. R	E. REWRITE THE SENTENCES BEGINNING WITH THE WORDS GIVEN. (3 pts)					
	1. Ahmed Sefrioui wrote <i>La Boîte à Merveilles</i> in 1954.					
			ldn't racevar his files from			
	-	•	ldn't recover his files from			
			alkeeper was not in good p			
I	f					
F. N	MATCH EACH E	EXPRESSION	WITH ITS APPRORIA	TE FUNCT	ION. (2 pts)	
		Express	sions		Functions	
			4		a. expressing regret	
	1. "Karim will d		_		b. expressing apology	
	2. "I shouldn't h	have tried to fi	x the computer myself."		c. expressing certainty	
					d. expressing opinion	
	1		2			
G. V	WRITE APPROP	RIATE RESI	PONSES TO THE FOLL	OWING SIT	TUATIONS. (2 pts)	
	1. Reading book	s is better than	n watching movies.			
	You (express your opinion):					
	2. Your friend can't decide whether to buy a tablet or a laptop.					
	You (give advice):					

لا يكتب أي شيء في هذا الإطار

5	5 ∫على	الصفحة:	ستحان الوطني الموحد للبكالوريا - الدورة العادية 2016 - الموضوع اللغة الإنجليزية - كل مسالك الشعب العلمية والتقنية والأصيلة - NS 12 -	الاه
				ماده:
III. WRIT	ING	(10 POINTS)		
TASK 1: (4 pts)	Complete the	e following paragraph about your favourite sport.	
M	y favourite	sport is	I prefer this sport for the following reas	sons.
First,				
TASK 2:	(6 pts)	Respoi	nd to this email.	
		sons spend too much	h time chatting and playing video games. I'm really worried about What should I do? Please, help. Worried father	
в <i>I</i> <u>U</u> <i>F</i>	• тГ• Т₃ 🕠 [## ## ## # # # # # # # # #	neck Spelling
Dear	worried fati	her,		
		• • • • • • • • • • • • • • • • • • • •		
				• • • • • • • • •
				• • • • • • •
				• • • • • • • •
				• • • • • • • •
			DITE VOLID NAME OD SIGN VOLID EMALI	• • • • • • •
Send Sav	e Now Disc		RITE YOUR NAME OR SIGN YOUR EMAIL.	

L.Comprehension:

- **A.** The best title is: 3. A new medical invention
- **B. 1. True**, "I learned a lot from an online free programme on electronics."
 - 2. False, "I went to the bank, but they wanted all sorts of guarantees."
 - **3.** True, "The Cardiopad saves me time and money."
- **C. 1.** 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 heart specialist interprets the results, 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. This led to \$20,000 grant from the Cameroonian government.
- **D. 1.** ...travel to urban centers to seek medical examinations.
 - 2. ...in investors who share his vision of better ways to help improve people's lives.
- E. 1. limited: restricted 2. look for: seek 3. expert: specialist
- **F. 1.** them: results **2.** which: tablets

II. Language:

- A. 1. independence 2. renewable
- **B. 1.** areas **2.** Stands for
- **C. 1.** whom **2.** living
- **D. 1.** will have completed **2.** met
- **E. 1.** La boite a Merveille was written by Ahmed Sefrioui in 1954.
 - 2. Although Jim was an expert, he couldn't recover his files from his hard disk.
 - 3. If our goalkeeper had been in good physical condition, we wouldn't have lost the game (wouldn't or might not) Or: If our goalkeeper had been in good physical condition, we could have won the game (could, would or might)
- **F. 1. c.** expressing certainty **2. a.** expressing regret
- **G.** There could be more than one possible answer.