

English: 2Bac (Science and technology)

National Exam 2021 Normal Session
Professeur: Mme ZAARA Asmae

I- Text

- [1] The company IBM Japan and four other partners are developing a smart suitcase that uses Artificial Intelligence (AI) to help people with visual disabilities to travel alone with greater freedom and security.
- [2] Visually-impaired people usually face problems using public transport and accessing other services. Luckily, there are canes and guide dogs to lead them around obstacles. These aids will soon be complemented with smart suitcases which would help them to travel independently.
- [3] Chieko Asakawa, an IBM Japan fellow who has vision problems, walks with the assistance of the first prototype of a robotic suitcase equipped with AI. The smart suitcase, which has been inspired by a proposal from Chieko, is equipped with a sensor, a camera, and a battery to detect obstacles and alert its users through tactile sensation. According to its designers, it will also notify users if friends approach or if there are cafes and other facilities nearby through an audio system.
- [4] In an interview with a Japanese newspaper, Chieko said that she got the idea when she was pushing a suitcase in front of her during a business trip. She thought that visually-impaired people could walk safely if a suitcase would scan the surroundings for danger.
- [5] Different companies are contributing to the development of the suitcase. IBM Japan will be responsible for Artificial Intelligence integrated into the suitcase. For its part, Alps Alpine will be responsible for tactile technology, Omron for image recognition and detection techniques, Shimizu for the navigation system, and Mitsubishi Motors for automotive technologies.
- [6] The smart suitcase will be used at airports, shopping centres, and in other indoor areas. It will later be improved so that users can use it in outdoor areas. The device is expected to be on the market in 2022.





Adapted from : www.inceptivemind.com

II- Comprehension (15 pts)

Base all your answers on the text

A. CHOOSE THE BEST ANSWER. (1 pt)

The text is about

- a. an invention for the visually-impaired.
- b. a visually-impaired Japanese woman.
- $\bullet\,$ c. a famous robotics company in Japan.

The best answer is:

B. ANSWER THESE QUESTIONS. (3 pts)

- 1. When did Chieko first have the idea of the smart suitcase?
- 2. What will be Alps Alpine's contribution to the design of the smart suitcase?
- 3. When will people be able to buy the smart suitcase?

C. FILL IN THE CHART WITH THE RIGHT INFORMATION FROM THE TEXT. (1 pt)

Name of company	Contribution to design the smart suitcase
1. IBM Japan	Arttficial Intelligence
2. Shimizu	
3. Omron	
I Communication (15 pts)	
I- Comprehension (15 pts)	DALGE 2 HIGHEY (Q.)
D. ARE THESE STATEMENTS TRUE OR	(- /
1. Guide dogs help visually-impaired people	e to move easily:
2. The smart suitcase will be able to recogn	nise people coming towards its users :
3. Mitsubishi Motors technology will allow	the smart suitcase to recognise images :
	ENCES WITH INFORMATION FROM THE TEXT. (2 pts)
•	
	will allow the smart suitcase to notify its users.
F. FIND IN THE TEXT WORDS THAT MI	***
3. risk (paragraph 4):	
G. WHAT DO THE UNDERLINED WORD	
	SIN THE TEXT REPER TO: (2 pts)
2. The device: (paragraph 6):	
· ,	
III- Language (15 pts)	
A. FILL IN THE GAPS WITH THE CORRI	• /
1. Brenda missed her class	she was taking part in a sports competition.
	therefore - because - whereas
2. The vaccine our	laboratory has developed is effective.
	whose - whom - which
B. GIVE THE CORRECT FORM OF THE	· - /
	anage) and financial problems.
	ccess) movies I have ever seen.
	RRECT WORDS FROM THE LISTS. (2 pts)
1. All the guests appreciated Tom's sense of	f except for Caren.
	joke - humour - amusement
2. Scientists will co	onducting research till they find a cure for cancer.
	keep on - log on - try on
D. REWRITE THE SENTENCES AS INDIC	CATED. (3 pts)
1. The jury has interviewed all the candida	tes online.
All the candidates	
	ead of a tablet," Danny said.
2. "If I were you, I would buy a laptop inst Danny advised his friend	
Danny advised his friend 3. Although Saida is from a poor backgroun	nd, she managed to pursue her higher education.
Danny advised his friend 3. Although Saida is from a poor backgroun	nd, she managed to pursue her higher education.
Danny advised his friend 3. Although Saida is from a poor backgroun In spite of	nd, she managed to pursue her higher education.
Danny advised his friend 3. Although Saida is from a poor backgroun in spite of III- Language (15 pts) E. PUT THE VERBS IN BRACKETS IN TI	HE CORRECT TENSE. (2 pts)
Oanny advised his friend	nd, she managed to pursue her higher education.

Functions

Expressions

- 1. "Why don't you try another job?"
- 2. "I don't share the same view with you."
- 3. "Can you give me more details about the topic?"
- 4. "What do you think of online learning?"

- $\bullet\,\,$ a. asking for opinion
- b. making a request
- c. disagreeing
- d. making a suggestion
- e. complaining

G.	COMPLETE	THE	FOLL	OWING	EXCHANGES.	(2)	pts)

1.	Manager: I'm afraid the report you sent me is full of mistakes.
Pat:	

2. Sandy: My computer can't read PDF documents. What should I do?

Casey : __

IV- Writing (10 pts)

DO TASKS 1 AND 2

4-1/ TASK 1 (4 pts)

Complete the following paragraph :

Many tourists like to visit Morocco for different reasons. First,

IV- Writing (10 pts)

4-2/ TASK 2 (6 pts)

Modem technology has facilitated our lives in many ways.

Write a short article for your school magazine about how modem technology has made your life easier.

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