BACCALAURÉAT GÉNÉRAL

SESSION 2013

ANGLAIS

LANGUE VIVANTE 2

Séries Générales

Durée de l'épreuve Série L : 3 heures – Coefficient : 4

Durée de l'épreuve Séries ES/S : 2 heures – Coefficient : 2

L'usage de la calculatrice et du dictionnaire n'est pas autorisé.

Dès que ce sujet vous est remis, assurez-vous qu'il est complet.
Ce sujet comporte 5 pages numérotées de 1/5 à 5/5.

Compréhension	10 points
Expression	10 points

TEXT 1   A ROBOT WITH A REASSURING TOUCH

BOSTON — If you grab the hand of a two-armed robot named Baxter, it will turn its head and a pair of cartoon eyes — displayed on a tablet-size computer-screen "face" — will peer at you with interest.

5 The sensation that Baxter conveys is not creepy, but benign, perhaps even disarmingly friendly. And that is intentional.

Baxter, the first product of Rethink Robotics, an ambitious start-up company in a revived manufacturing district here, is a significant bet that robots in the future will work directly with humans in the workplace.

10 That is a marked shift from today's machines, which are kept safely isolated from humans, either inside glass-cages or behind laser-controlled "light curtains", because they move with Terminator-like speed and accuracy and could flatten any human they encountered. By contrast, Baxter, which comes encased in plastic and has a nine-foot "wingspan", is relatively slow and imprecise in the way it moves. And it has an elaborate array of safety mechanisms and sensors to protect the human workers
15 it assists.

Here in a brick factory that was once one of the first electrified manufacturing sites in New England, Rodney A. Brooks, the legendary roboticist who is Rethink's founder, proves its safety by placing his head in the path of Baxter's arm while it moves objects on an assembly line.[…]

20 The $22,000 robot that Rethink will begin selling in October is the clearest evidence yet that robotics is more than a laboratory curiosity or a tool only for large companies with vast amounts of capital. The company is betting it can broaden the market for robots by selling an inexpensive machine that can collaborate with human workers, the way the computer industry took off in the 1980s when the prices of PCs fell
25 sharply and people without programming experience could start using them right out of the box.

John MARKOFF, *The New York Times*, September 18, 2012

TEXT 2   ALTER OUR DNA OR ROBOTS WILL TAKE OVER, WARNS HAWKING

Stephen Hawking, the acclaimed scientist and writer, reignited the debate over genetic engineering yesterday by recommending that humans change their DNA through genetic modification to keep ahead of advances in computer technology and stop intelligent machines from 'taking over the world'.

5   He made the remarks in an interview with the German magazine *Focus*. Because technology is advancing so quickly, Hawking said, 'computers double their performance every month'. Humans, in contrast, are developing much more slowly, and so must change their DNA make-up or be left behind. 'The danger is real,' he said, 'that this [computer] intelligence will develop and take over the world.' […]

10   He also advocated cyber-technology - direct links between human brains and computers. 'We must develop as quickly as possible technologies that make possible a direct connection between brain and computer, so that artificial brains contribute to human intelligence rather than opposing it.'

Nick Paton WALSH, *The Observer*, Sunday 2 September 2001

COMPREHENSION

1 – Read the two texts and find the following information.

TEXT 1
   a) Type:
   b) Author:
   c) Source:
   d) Is it informative or fictional?
   e) Subject:

TEXT 2
   a) Type:
   b) Author:
   c) Source:
   d) Is it informative or fictional?
   e) Subject:

2 – Who or what do the following names refer to?

   a) Baxter:
   b) Rethink:
   c) Rodney Brooks:
   d) Stephen Hawking:
   e) John Markoff:
   f) Nick Walsh:

3 – Focus on text 1:

- **3.1** Choose six adjectives characterizing Baxter. Justify by quoting from the text.

   ambitious / benign/ creepy/ dangerous/ fast/ friendly-looking/ imprecise/ inexpensive/ safe/ slow

- **3.2** Are the statements Right or Wrong? Justify with a quote from - or a reference to - the text:

a) Rethink Robotics is an American company.

b) Rethink Robotics began selling the Baxter robots in the 1980s.

c) The company has created a robot that is dangerous for humans.

d) Robots today do not work in direct contact with humans.

e) The price of a Baxter robot will remain high.

- **3.3** In a few words, compare Terminator-like robots and Baxter.

4 – Focus on text 2:

- **4.1** How does Hawking feel about *"intelligent machines"?*

- **4.2** What solutions does he suggest? What would be the objective of each solution?

Seuls les candidats de la série L traiteront la question suivante.

5 – Compare and contrast how the two texts present and analyse the issue of machine intelligence (80 to 100 words).

EXPRESSION

Les candidats de la série L traiteront les **deux** sujets.
Les candidats des séries S et ES choisiront **un sujet**.

      A – How do you feel about the rise of intelligent machines? Do you think they are dangerous? Discuss and illustrate your point using precise examples.
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      B – Imagine living with a robot in your home. Write about a typical day in the company of your robot.