

DEVOIR DE FIN DE SEMESTRE N°2

1. Each morning Indian farmer R Murali opens an app on his phone to check if his pomegranate trees need watering, fertiliser or are at risk from pests. "It is a routine," Murali, 51, told AFP at his farm in the southern state of Karnataka.
2. Murali is part of an increasing number of growers in the world's most populous nation who have adopted artificial intelligence-powered tools, which he says help him farm "more efficiently and effectively." "The app is the first thing I check as soon as I wake up," said Murali, whose farm is planted with sensors providing constant updates on soil moisture, nutrient levels and farm-level weather forecasts.
3. Murali says the AI system developed by tech startup Fasal, which details when and how much water, fertiliser and pesticide is needed, has slashed costs by a fifth without reducing yields. Ananda Verma, a founder of Fasal, which serves around 12,000 farmers said: "What we have built is a technology that allows crops to talk to their farmers."
4. Verma, 35, who began developing the system in 2017 to understand soil moisture as a "do-it-yourself" project for his father's farm, called it a tool "to make better decisions." But Fasal's products cost between US\$57 and US\$287 to install. That is a high price in a country where farmers' average monthly income is US\$117, and where over 85 percent of farms are smaller than two hectares (five acres), according to government figures. "We have the technology, but the availability of risk capital in India is limited," said Verma.
5. Political leaders in India are determined to develop homegrown and low-cost AI. Agriculture, which accounts for roughly 15 percent of India's economy, is one area ripe for its application. Farms are in dire need of investment and modernisation especially with water shortages, floods and increasingly erratic weather, as well as debt, that have taken a heavy toll in an industry which employs roughly two-thirds of India's 1.4 billion population.
6. India is already home to over 450 agritech startups with the sector's projected valuation at US\$24 billion, according to a 2023 report by the government NITI Aayog think tank. But the report also warned that a lack of digital literacy often resulted in the poor adoption of agritech solutions.
7. Among those companies is Niqo Robotics, which has developed a system using AI cameras attached to focused chemical spraying machines. Tractor-fitted sprays assess each plant to provide the ideal amount of chemicals, reducing input costs and limiting environmental damage, it says. Niqo claims its users in Maharashtra and Andhra Pradesh states have cut their outlay on chemicals by up to 90 percent.
8. At another startup, BeePrecise, Rishina Kuruvilla is part of team that has developed AI monitors measuring the health of beehives. That includes moisture, temperature and even the sound of bees – a way to track the queen bee's activities. Kuruvilla said the tool helped beekeepers harvest honey that is "a little more organic and better for consumption."

9. But while AI tech is blossoming, takeup among farmers is slow because many cannot afford it. Agricultural economist RS Deshpande, a visiting professor at Bengaluru's Institute for Social and Economic Change, says the government must meet the cost. Many farmers "are surviving" only because they eat what they grow, he said. "Since they own a farm, they take the farm produce home," he said. "If the government is ready, India is ready."

AFP, February 7, 2025

PART ONE: READING COMPREHENSION: (30pts)

Question 1: Which is the best title for the text?

- (a) The Decline of Traditional Farming in India
- (b) AI Starts to Help India's Struggling Farms
- (c) The Impact of Climate Change on Indian Farmers

Question 2: Say whether the following statements are true or false. Provide justifications from the text:

- (a) Thanks to AI tools, Murali has been able to reduce his farm expenses.
- (b) Fasal was originally developed as a personal initiative.
- (c) In India, almost half of the population is engaged in the farming sector.
- (d) Investing in AI tools is above the financial means of many Indian farmers.

Question 3: What kind of data do the sensors on Murali's farm collect?

Question 4: Complete the paragraph on the answer sheet with words or phrases from the text.

Question 5: Use your own words to explain the contrast the 2023 NITI Aayog report makes about agritech in India.

Question 6: Complete the table on the answer sheet with information from the text.

Question 7: Find in the text words having approximately the same meaning as the following:

- (a) insects that attack crops or livestock (§1)
- (b) urgent or desperate (§5)
- (c) to monitor the movement (§8)
- (d) increasing largely in use or interest (§9)

Question 8: What do the underlined items in the text refer to?

- (a) the world's most populous nation (§2)
- (b) their (§3)
- (c) its (§5)
- (d) their (§7)

Question 9: Choose the correct alternative:

When Professor RS Deshpande says: "the government must meet the cost" (§9), he means:

- (a) The government has to tax farmers more to support agricultural AI innovation.
- (b) The government should subsidize AI technology because many farmers cannot afford it.
- (c) The government must raise prices to recover its investment in AI tools.

PART TWO: LANGUAGE TASKS (30pts):

Question 10: Put the bracketed words in the correct tense: (4pts)

In early February 2024, McDonald's announced that sales growth for the fast-food chain's operations in the Middle East, China and India during last year's final quarter **(a) (reach)** 0.7 percent, well below market expectations of 5.5 percent. Indeed, McDonald's slump came in the wake of customer calls for boycotts that have echoed across Muslim countries in response to its perceived support for Israel's military campaign in Gaza, which **(b) (claim)** the lives of around 50,000 civilians to date, including 20,000 children, and which shows little sign that it **(c) (end)** soon. Chief Executive Officer Chris John Kempczinski confirmed on a conference call that the conflict **(d) (have)** a "disheartening" impact on company sales in Middle Eastern countries and other Muslim-majority nations, including Malaysia and Indonesia.

Question 11: Put the bracketed words in the correct form: (4pts)

McDonald's is not the only Western brand to suffer from its political leanings tied to the conflict in Gaza. Indeed, its mediocre sales **(a) (announce)** came hot on the heels of similarly **(b) (disappoint)** results from Starbucks, which saw boycotts of its products in the Middle East and the United States drag down its **(c) (year)** sales forecasts and cause it **(d) (miss)** market expectations soundly.

Question 12: Find synonyms to the bracketed words. The first two letters the word begins with are provided to help you. The number of hyphens corresponds to the number of missing letters: (4pts)

Advertising is a **(a) po...** (= potent) tool that shapes consumer behavior, influences **(b) tr...** (= tendencies), and drives economic activity. Over the years, it has evolved **(c) si...** (= remarkably), adapting to new technologies and **(d) al...** (= changing) consumer preferences.

Question 13: Find antonyms to the bracketed words. The first two letters the word begins with are provided to help you. The number of hyphens corresponds to the number of missing letters: (4pts)

At the end of the 20th century, the world experienced the second **(a) gr...** (≠ minor) acceleration of globalization. Communism collapsed. The European Union expanded. Soon, China joined the world trading system. Migration once again **(b) su...** (≠ diminished). Today, **(c) mo...** (≠ fewer) than 15% of people living in America were born abroad, surpassing a **(d) pr...** (≠ following) high of 14.8% in 1890.

Question 14: Rewrite the direct speech as reported speech: (4pts)

Commercial aviation expert Addison Schonland said the following to Newsweek: "Beijing has directed its airlines not to take any further deliveries of Boeing aircraft. A halt was also imposed on imports of aircraft-related parts from all American companies. In addition, the Chinese officials are requiring airlines to seek approval before accepting delivery of orders that have already been placed."

Question 15: Express differently using compound adjectives: (2pts)

- (a) The mindset that serves the self has become standard in the pharmaceutical industry today.
- (b) This car has protection against bullets.

Question 16: Express differently using modal verbs: (2pts)

- (a) The Medicare Prescription Drug Act prohibits the federal government in the U.S. from negotiating drug prices.
- (b) I'm sure you didn't forget your passport; you double-checked it this morning.

Question 17: Express differently starting as given on the answer sheet: (4pt)

- (a) As soon as he stirred the mixture, the colour changed to red.
- (b) They say the new strategy has reduced pollution in many ways.
- (c) He has been a biologist in this laboratory for seven years.
- (d) It's high time for authorities to forbid single use plastic bags.

Question 18: Use the appropriate conditional type in the following sentences: (2pts)

- (a) If she doesn't arrive soon, we'll have to start the meeting without her.
- (b) The machine broke down because he didn't lubricate it.

PART THREE: WRITING TASKS (20pts)

Question 19: Fill in the blanks with the appropriate linkers from the list (there are additional ones): (4pts)

while / because / due to / in addition to / not only / but / however

Many people think the ubiquity of Chinese products is (a) the abundance of cheap Chinese labor that brings down the production costs, (b) there is much more to it than that. (c) its low labor costs, China has become known as "the world's factory" (d) it offers advantages such as low wages, strong business ecosystem, relatively lax commercial regulations, low taxes and duties, and competitive currency practices.

Question 20: Find the FOUR mistakes in the following paragraph and correct them on the answer sheet: (4pts)

During the industriel revolution, local and national governments made major public investments to teach the skills of reading, writing and math that are necessary for the new jobs at that time. There was also investment in new roads, ports and other infrastructure. In this new area, we need public investment in digital skills for everyone, as well as digital highways that allow regions participating in new economic opportunities.

Question 21: Essay

Land pollution poses a significant challenge in Tunisia, with waste accumulation everywhere. But if managed effectively, waste can become a valuable resource, offering solutions to environmental and economic problems.

Develop this idea in a 15-line essay showing how trash can be turned into treasure.

**AVIS IMPORTANT AUX ETUDIANTS**

1. Chacune des feuilles de votre copie doit comporter une étiquette code à barres placée à l'endroit indiqué «coller ici votre code à barres»
2. Une copie d'examen comporte une seule «feuille principale» et des «feuilles suites» Sur chacune de vos feuilles, le code à barres est obligatoire
3. Cette feuille d'examen est strictement personnelle Elle ne doit comporter aucun signe distinctif Elle doit être écrite en noir et/ou bleu
4. Le non respect de l'une de ces exigences peut faire attribuer la note ZERO à l'épreuve

**NOTE**

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Coller ici votre code à barre

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20

00	25	50	75

I.P.E.I.S.

**DEVOIR DE FIN DE SEMESTRE N°2
(ANSWER SHEET)**A.U. : 2024/2025 / Niveau : 2ème année
Epreuve : Anglais / Durée : 2 heures**PART ONE: COMPREHENSION QUESTIONS: (30pts)****Question 1: The best title for the text (1pt)**

.....

Question 2: True or false statements. Provide justifications from the text (6pts)

- a)
- b)
- c)
- d)

Question 3: Kind of data the sensors on Murali's farm collect (3pts)

- a)
- b)
- c)

Nom, prénom et signature de
l'enseignant surveillant

**Question 4: Paragraph Completion: (5pts)**

Agriculture in India is facing multiple challenges. Farms are under pressure due to (a), (b) and increasingly unpredictable weather. Many also struggle with (c), making it difficult to invest in modern tools. However, decision makers in the country believe that adopting (d) and (e) artificial intelligence could transform the sector.

Question 5: The contrast made about agritech in India (1pt)

.....
.....

Question 6: Table Completion: (5pts)

Startups	Technological tools	Aims	Achievements
Niqo Robotics	AI cameras	assessing each plant to provide the ideal amount of chemicals	(a)..... (b).....
BeePrecise	(c).....	(d).....	(e).....

Question 7: Words having approximately the same meaning as: (4pts)

- (a) insects that attack crops or livestock (§1) :
(b) urgent or desperate (§5) :
(c) to monitor the movement (§8) :
(d) increasing largely in use or interest (§9) :

Question 8: References: (4pts)

- (a) the world's most populous nation (§2):
(b) their (§3) :
(c) its (§5) :
(d) their (§7) :

Question 9: the correct alternative: (1pt)

When Professor RS Deshpande says: "the government must meet the cost" (§9), he means:

.....

PART TWO: LANGUAGE TASKS: (30pts)

Question 10: Put the bracketed words in the correct tense: (4pts)

(a)	(c)
(b)	(d)

Question 11: Put the bracketed words in the correct form: (4pts)

(a)	(c)
(b)	(d)

Question 12: Find synonyms to the bracketed words: (4pts)

(a) po - - - - -	(c) si - - - - -
(b) tr - - - - -	(d) al - - - - -

Question 13: Find antonyms to the bracketed words: (4pts)

(a) gr - - -	(c) mo - -
(b) su - - - -	(d) pr - - - - -

Question 14: Rewrite the direct speech as reported speech: (4pts)

Commercial aviation expert Addison Schonland told Newsweek that Beijing (a) its airlines not to take any further deliveries of Boeing aircraft. He added that a halt (b)..... on imports of aircraft-related parts from all American companies. He also claimed that the Chinese officials (c)airlines to seek approval before accepting delivery of orders that (d)

Question 15: Express differently using compound adjectives: (2pts)

- (a) Themindset has become standard in the pharmaceutical industry today.
(b) It is a car.

Question 16: Express differently using modal verbs: (2pts)

- (a) The federal government in the U.S
(b) You; you double-checked it this morning.

Question 17: Express differently starting as given: (keep the same meaning) (4pt)

- (a) No sooner
(b) The new strategy
(c) He became.....
(d) It's high time authorities

Question 18: Use the appropriate conditional type in the following sentences: (2pts)

- (a) Unless
(b) Had

PART THREE: WRITING TASKS: (20pts)

Question 19: Appropriate linkers (4pts)

(a)	(b)	(c)	(d)
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Question 20: Finding mistakes and correcting them (4pts)

Mistakes	Correction
a)	a).....
b)	b).....
c)	c).....
d)	d)

Question 21: Essay: (12pts)

[illegible]