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NOTE :
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NOTE :
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Le sujet comporte 4 pages numérotées de 1 sur 4 à 4 sur 4

I. READING COMPREHENSION

A. THE TEXT

1. In the blissful summer that Hemesh Chadalavada spent with his grandmother in 2018, the pair watched endless movies and ate chicken biryani. Late one evening, as Chadalavada, then 12, sat on his own in front of the television, the 63-year old woman got up and went to make tea. After she had returned to her bedroom, Chadalavada went into the kitchen to find that she had left the gas on. "She had recently been diagnosed with Alzheimer's but I was still in shock. What would have happened if I hadn't been there?" says Chadalavada. The school boy from Hyderabad, who loved robotics, decided to invent a gadget to help people like his grandmother.

2. Now aged 17, Chadalavada is poised to start manufacturing a device that detects when people with Alzheimer's fall or stray, which goes beyond the reach of the devices currently available. The gadget sets off an alarm when the person starts to move and alerts a caregiver if the patient falls or wanders off. Unlike existing gadgets with limited connection range, Chadalavada's wearable device can detect a person kilometers away thanks to the long-range technology, known as LoRa. It also measures pulse and temperature, and reminds people when to take medication.

3. The stories Chadalavada heard about people with Alzheimer's served to reinforce his drive, despite his heavy workload at school. Teaching himself with YouTube videos about robotics and electronics, Chadalavada has developed 20 prototypes. Having won a 10 million rupee (£100,000) grant in a national contest, he will put the finishing touches to the gadget, with the aim of getting it ready for market by September. He insists that it should be sold at an affordable price for most people. Chadalavada hopes to study robotics at a university abroad. His aim is simple: "I am adamant about creating products for people in India and the whole world."

The Guardian.org – (adapted)

January 2024

Ne rien écrire ici

II. WRITING (12 marks)

1. Develop the notes below into a four-line paragraph about the robot *Ameca*.
(4 marks)

Type	one / the world's / advanced humanoid robots
Developer	Engineered Arts / 2021
Equipment	cameras / microphones / GPT-3 / facial recognition software
Capabilities	can... - draw - interact / humans / many languages - express / variety / human emotions

2. Some people believe that students learn more effectively in a mobile-free school environment. Do you agree or disagree?

Write a 12-line article in an electronic magazine in which you give your opinion about the issue. Support it with at least three sound arguments. (8 marks)

Ne rien écrire ici

III. LANGUAGE (6 marks)

1. Fill in the blanks with six (6) words from the box. (3 marks)

connect – greatest – who – pace – to – enhancing – reducing – that

Living in the city can be fast-moving and hectic, leaving little time for relaxation and reflection. It's no wonder that many people long for a slower _____ of life, which can be found in the countryside. Whether it is the fresh air, wide-open spaces, or the sense of community, there's something about country living _____ draws people in. Living in the countryside allows us to _____ with nature in a way that's not possible in the city. From watching the sunrise over the fields to spotting wildlife in the woods, there's always something _____ appreciate. Being surrounded by nature can also have a calming effect on our minds and bodies, _____ stress levels and promoting a sense of well-being. In the countryside, the simple things in life can bring the _____ joys.

2. Circle the right alternative. (3 marks)

Quitting smoking could give you an extra five years of healthy life, researchers say today. Dutch cardiologists claim the benefits of kicking the habit are even bigger than they previously **(thought – think – thinking)**. They claimed giving **(on – in – up)** smoking was, theoretically, just as effective as taking three types of heart medications. Smoking is responsible for half of all **(verifiable – avoidable – inevitable)** deaths in smokers. The research, **(present – presenting – presented)** at a European Society of Cardiology conference, involved 989 patients aged 45 or older. They were all still smoking at least six months after having a heart attack or bypass surgery. Dr Van Trier stated: "This analysis focused on smokers who, earlier, **(had experienced – was experiencing – has experienced)** a heart attack. This group is at a particularly high risk of having another heart attack or a stroke, and stopping smoking is potentially the **(least – more – most)** effective preventive action." He added: "It's also important to eat a healthy diet, get regular exercise, cut down on the amount of alcohol you drink, and be aware of your cholesterol and blood pressure."

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