

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

I. Translation (36%)

Please translate the following passages into **Chinese**.

1. Cloud technology is transforming the way information is disseminated. We should not be surprised to discover, then, that education—the dissemination of information from teacher to student—also has a brand-new look. When books, teaching materials, and homework can be put in the cloud, teachers can engage their students through a variety of technologies including computers, electronic whiteboards, e-bookbags, and more, and information can be shared collectively. Education will no longer be restricted by time or space. (10%)
2. Late last year the Taiwan Hospice Organization, which has devoted itself to promoting more humane health care, began to offer hospice care for pets and courses to help bereaved pet owners cope with their grief. There's no shame in feeling bereft at the death of a pet. But what can you do to deal with the pain so that you are left only with the love? (8%)

Please translate the following passages into **English**.

3. 對 1949 年國民政府 200 萬軍民遷台後就不曾出現大規模人口移入的台灣而言，過去的十年是新一波的異國文化洗禮高峰。人數高達 50 萬人的外來族群中，來自鄰近東南亞國家的 43 萬移工和移民，無疑是最易辨識的一群。從南到北，他們的聚落逐漸成形，順應著他們的需求而進口的東南亞口味和文化也日趨豐富。而當歐商、美商逐漸撤離此地轉進中國的同時，留下來的更顯露出對於台灣特殊的情感和珍視。在移工、移民日增的同時，台灣的外國文化呈現出哪些樣貌？標舉打造雙語環境與國際化的台灣人，真正看到這群人存在嗎？(10%)
4. 頭腦會因為外界環境的需求而改變內在神經的機制。當「場景—行為」連結，開闢一條新的神經連結通路後，大腦中的海馬迴 (hippocampus) 和相關連的神經網絡，會儲存下這個特定的行為反應，以便日後再遇到相同場景時，提取出相同或類似反應。久而久之，這條神經通路就成為一種自動化歷程，改變腦的結構與功能。因此，利用腦的可塑性，後天加以操練，就能增加、強化腦神經元的新連結，幫助我們面對人生的變化，掌握命運。(8%)

II. Reading Comprehension: Read the following passages and answer the questions by the instructions. (24%)

1. Mind Control? (source: Discover Magazine: August, 2008)

In the 1950s, visitors to a brothel atop San Francisco's Telegraph Hill got more than just a tryst and a view of the bay. Clients were secretly dosed with LSD as CIA agents watched from behind a one-way mirror. Although it sounds like a bad late-night spy movie, *Operation Midnight Climax*, as it was called, was a very real part of a larger covert project called MKULTRA.

(背面仍有題目,請繼續作答)

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In 1953 the director of Central Intelligence, Allen W. Dulles, officially approved MKULTRA,- which sought chemical, biological, and radiological approaches to interrogation and behavior modification. Early on, the experiments employed volunteers, but as the program grew, ordinary American citizens and foreign nationals became unsuspecting subjects in the studies. At least one death was directly attributed to the experiments: Army scientist Frank Olson drank Cointreau laced with LSD and committed suicide a week later.

“They launched into reckless experimentation without close medical supervision,” says psychiatrist James S. Ketchum, whose book, *Chemical Warfare Secrets Almost Forgotten*, recounts his participation in a different Army project exploring the use of LSD as a chemical weapon. “Moral issues were considered minor if greater national security could be obtained.”

LSD, radiation, and electroshock all ended up as dead ends in the MKULTRA program’s quest for mind control. Still, the search for ways to penetrate minds continues. Recent studies suggest that noninvasive brain scans, taken with a functional MRI (fMRI), make the mind more transparent. Private companies tout fMRI as an improved lie detector, and the government has taken notice. Programs funded by the Department of Defense have looked into the feasibility of fMRI research.

Even so, plenty of people have their doubts. “That bridge between consciousness and drug effects has yet to be crossed, and I don’t know if it ever will be,” Ketchum says. “There is no truth serum.”

Decide if the information about the text is True (T), False (F), or Not Given (NG). Write T, F or NG, on your answer sheet.

- _____ a. The subjects who were dosed with LSD on Telegraph Hill were ordinary sight-seers.
- _____ b. The MKULTRA projects involved volunteers and people who were unaware of the experiments.
- _____ c. The advent of fMRI shed light on the research on the human mind.
- _____ d. LSD is a drug that causes psychological effects, including altered thinking processes, closed- and open-eye visuals, and synesthesia.
- _____ e. The main purpose of the experiments was to study mind control.
- _____ f. Truth serum will be discovered in the future.

2. Stem Cells (source: National Geographic Magazine: July, 2005)

In the beginning, one cell becomes two, and two become four. Being fruitful, they multiply into a ball of many cells, a shimmering sphere of human potential. Scientists have long dreamed of plucking those naive cells from a young human embryo and coaxing them to perform, in sterile isolation, the everyday miracle they perform in wombs: transforming into all the 200 or so kinds of cells that constitute a human body: liver cells, brain cells, skin, bone, and nerve.

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The dream is to launch a medical revolution in which ailing organs and tissues might be repaired—not with crude mechanical devices like insulin pumps and titanium joints but with living, homegrown replacements. It would be the dawn of a new era of regenerative medicine, one of the holy grails of modern biology.

Revolutions, alas, are almost always messy. So when James Thomson, a soft-spoken scientist at the University of Wisconsin in Madison, reported in November 1998 that he had succeeded in removing cells from spare embryos at fertility clinics and establishing the world's first human embryonic stem cell line, he and other scientists got a lot more than they bargained for. It was the kind of discovery that under most circumstances would have blossomed into a major federal research enterprise. Instead the discovery was quickly engulfed in the turbulent waters of religion and politics. In church pews, congressional hearing rooms, and finally the Oval Office, people wanted to know: Where were the needed embryos going to come from, and how many would have to be destroyed to treat the millions of patients who might be helped? Before long, countries around the world were embroiled in the debate.

Most alarmed have been people who see embryos as fully vested, vulnerable members of society, and who decry the harvesting of cells from embryos as akin to cannibalism. They warn of a brave new world of "embryo farms" and "cloning mills" for the cultivation of human spare parts. And they argue that scientists can achieve the same results using adult stem cells—immature cells found in bone marrow and other organs in adult human beings, as well as in umbilical cords normally discarded at birth.

Decide if the information about the text is True (T), False (F), or Not Given (NG). Write T, F or NG, on your answer sheet.

- _____ a. Scientist wanted stem cells to perform their tasks out of wombs.
- _____ b. Some people think it is like killing to extract cells from embryos.
- _____ c. Human cloning is possible in the future by stem cell studies.
- _____ d. The U.S. federal government showed great interest in James Thomson's research.
- _____ e. The phrase "holy grail" in the second paragraph equals to "major advance".
- _____ f. Adult stem cells may be an alternative to embryo stem cells.

III. Essay Writing (40%)

In addition to the knowledge of his/her fields of study, what other capacities should a graduate student develop? Please write an essay (at least 400 words) in response to the question.