

南華大學九十七學年度 碩士班 招生考試試題卷

系所別：自然醫學研究所

科目編號：521-1

科目：英文

試題紙第 1 頁共 4 頁

Answer all questions based on what is stated or implied in the following passages. Choose the one best or most appropriate answer.

I. Read the following passage: (30%)

THE runner's high: Every athlete has heard of it, most seem to believe in it and many say they have experienced it. But for years scientists have reserved judgment because no rigorous test confirmed its existence.

Yes, some people reported that they felt so good when they exercised that it was as if they had taken
Line mood-altering drugs. But was that feeling real or just a delusion?

(5) Some who said they had experienced a runner's high said it was uncommon. They might feel relaxed or at peace after exercising, but only occasionally did they feel euphoric.

My friend Marian Westley said her runner's high came at the end of a marathon, and it was paired with such volatile emotions that the sight of a puppy had the power to make her weep.

(10) Others said they experienced a high when pushing themselves almost to the point of collapse in a short, intense effort, such as running a five-kilometer race.

But then there are those like my friend Annie Hiniker, who says that when she finishes a 5-k race, the last thing she feels is euphoric. "I feel like I want to throw up," she said.

The runner's-high hypothesis proposed that there were real biochemical effects of exercise on the brain. Chemicals were released that could change an athlete's mood, and those chemicals were endorphins, the brain's
(15) naturally occurring opiates. Running was not the only way to get the feeling; it could also occur with most intense or endurance exercise.

The problem with the hypothesis was that it was not feasible to do a spinal tap before and after someone exercised to look for a flood of endorphins in the brain. Researchers could detect endorphins in people's blood after a run, but those endorphins were part of the body's stress response and could not travel from the blood to
(20) the brain. They were not responsible for elevating one's mood. So for more than 30 years, the runner's high remained an unproved hypothesis.

But now medical technology has caught up with exercise lore. Researchers in Germany, using advances in neuroscience, report in the current issue of the journal *Cerebral Cortex* that the folk belief is true: Running does elicit a flood of endorphins in the brain. The endorphins are associated with mood changes, and the more
(25) endorphins a runner's body pumps out, the greater the effect.

Leading endorphin researchers not associated with the study said they accepted its findings.

"Impressive," said Dr. Solomon Snyder, a neuroscience professor at Johns Hopkins and a discoverer of endorphins in the 1970's.

The lead researcher for the new study, Dr. Henning Boecker of the University of Bonn, said he got the idea of
(30) testing the endorphin hypothesis when he realized that methods he and others were using to study pain were directly applicable.

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The idea was to use PET scans combined with recently available chemicals that reveal endorphins in the brain, to compare runners' brains before and after a long run. If the scans showed that endorphins were being produced and were attaching themselves to areas of the brain involved with mood, that would be direct evidence (35) for the endorphin hypothesis. And if the runners, who were not told what the study was looking for, also reported mood changes whose intensity correlated with the amount of endorphins produced, that would be another clincher for the argument.

The data showed that, indeed, endorphins were produced during running and were attaching themselves to areas of the brain associated with emotions, in particular the limbic and prefrontal areas.

(40) The limbic and prefrontal areas, Dr. Boecker said, are activated when people are involved in romantic love affairs or, he said, "when you hear music that gives you a chill of euphoria, like Rachmaninoff's Piano Concerto No. 3." The greater the euphoria the runners reported, the more endorphins in their brain. (Excerpted from *The New York Times*, "Yes, Running Can Make You High" by Gina Kolata. March 27, 2008.)

1. This passage is mainly about _____.
(A) lifestyle and diseases
(B) the exercise habits of Americans
(C) PET scans use in research
(D) brain chemicals and exercise
2. According to the passage, which one of the following cannot lead to a high? _____.
(A) Running a five-kilometer race
(B) Receiving a spinal tap
(C) Taking mood-altering drugs
(D) Involving in romantic love affairs
3. The word "euphoric" in line 12 is closest in meaning to _____.
(A) sad
(B) peaceful
(C) happy
(D) sick
4. It can be inferred from the passage that _____.
(A) every athlete has experienced runner's high
(B) no scientist accepts Dr. Boecker's findings
(C) exercise can prevent heart disease or cancer
(D) previous research has not been able to prove the runner's-high hypothesis
5. It can be inferred from the passage that _____.
(A) PET scans has been used for more than 30 years
(B) endorphins are being produced by Germany researchers
(C) research have shown that Rachmaninoff's music increased endorphins
(D) limbic and prefrontal areas are parts of the brain associated with emotions
6. What is the response of Dr. Snyder to Dr. Boecker's study? _____.
(A) Endorphins should have been discovered in the 1970's
(B) Dr. Snyder does not agree with the findings from Dr. Boecker's study
(C) Dr. Snyder accepts the results from Dr. Boecker's study
(D) Leading neuroscience professors at Johns Hopkins are associated with Dr. Boecker's study

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II. Read the following passage: (30%)

Worldwide, about 40 million people are learning Mandarin, China's official spoken language and its most common dialect. Nearly 100,000 foreigners went to China to study Mandarin in 2006, more than twice the number five years earlier.

Line (5) "In my generation, the U.S. was the first choice," said Ho, whose Taipei Language Institute now boasts 2,400 students at 16 branches, nine of them in mainland China itself. This generation "thinks their future is in China. Why bother going to the U.S.? My friends encourage their children to go to China."

The rise of the Middle Kingdom has clear parallels with America in the last century, when it became a magnet for people from around the world, said James McGregor, author of the best-selling book, "One Billion Customers: Lessons from the Front Lines of Doing Business in China."

(10) "This is a continental-sized economy being built from scratch," he said. "Everyone used to go to America because it was the global happening place. Now this is the global happening place."

McGregor, a former journalist who runs a business consulting firm in Beijing, advises those who want to head to China to bring an open mind, a sense of adventure and an appreciation for the absurd.

The other key to making it? Solid language skills.

(15) "If you're going to be an entrepreneur, you need to sink into the culture," he said. "Any 20-year-old American thinking of doing business in China one day and not thinking of learning Mandarin is not thinking."

Nowhere has interest in Chinese been stronger than among other Asians, as China's rapid ascension reshapes the priorities of its neighbors. Recent Gallup surveys in 13 Asian countries showed some 40 percent expect China to replace the U.S. as the leading superpower within the next 50 years.

(20) Four of the top five nations that sent students to China for language study were Asian -- South Korea, Japan, Indonesia and Vietnam respectively. The United States, which ranked third, was the only Western country in that group.

In neighboring Taiwan, where the number of Mandarin students has doubled to around 11,000 over the past decade, about 60 percent of the students are Asian. Most come from Japan and Korea, though growing numbers are from Southeast Asia. The rest are split between America and Europe.

(25) "Twenty or 30 years ago, if Asians wanted to study abroad, they would go to the U.S or Europe," said Chung-Tien Chou, director of National Taiwan Normal University's Mandarin Training Center, the largest language school in Taiwan. "Now that has changed. More young people in Asia don't only look to the Western countries anymore but they look to Asian countries as options." [Excerpted from CNN Asia Edition, "Mandarin gets down to business" March 23, 2008]

7. The word "ascension" in line 17 means _____.
(A) recession (B) rising (C) descending (D) expansion

8. It can be inferred from the passage that _____.
(A) more and more people go to the U.S. to learn Chinese
(B) good language skills are necessary to do business in mainland China
(C) learning Mandarin requires no thinking
(D) Mandarin is the most common dialect worldwide
(E) Thailand has never sent students to mainland China for language study

9. The word "Middle Kingdom" in line 7 means _____.
(A) America (B) China (C) business leaders (D) foreigners

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10. It can be inferred from the passage that _____.
 (A) the number of students coming to Taiwan to learn Mandarin has not changed over the past decade
 (B) there are more American students than European students coming to Taiwan to learn Mandarin
 (C) the Taipei Language Institute is the largest language school in Taiwan
 (D) more than 6000 Mandarin students in Taiwan are Asian
 (E) young people in Asia do not consider going to Asian countries when they want to study abroad
11. It can be inferred from the passage that _____.
 (A) about 100,000 foreigners went to mainland China to learn Mandarin in 2001
 (B) about 200,000 non-Chinese will go to mainland China to learn Mandarin in 2010
 (C) the 16 branches of the Taipei Language Institute are all located in Taipei
 (D) seven branches of the Taipei Language Institute are not located in mainland China
 (E) about 40 million non-Chinese people are learning Mandarin in mainland China
12. According to the recent Gallup surveys, _____.
 (A) there are 13 countries in Asia
 (B) all Asian countries expect China to replace the U.S. as the leading superpower
 (C) South Korea, Japan, Indonesia, and Vietnam will replace China as the economic leader in Asia
 (D) U.S. is currently the leading superpower
 (E) China will replaced U.S. as the leading superpower after 50 years

III. Link each word in the left column with its correct meaning provided in the right column: (40%)

- | | | |
|------------------|-------|---|
| 13. acute | _____ | A. the act of intentionally killing oneself |
| 14. avian | _____ | B. relating to the diet |
| 15. symptom | _____ | C. the use of fragrances to affect a person's mood |
| 16. suicide | _____ | D. experiencing a rapid onset |
| 17. mental | _____ | E. an abnormally strong craving |
| 18. stress | _____ | F. relating to the mind |
| 19. addiction | _____ | G. pertaining to birds |
| 20. dietary | _____ | H. pertaining to plants |
| 21. aromatherapy | _____ | I. a sign or indication of something |
| 22. herbal | _____ | J. physical, mental, or emotional strain or tension |
| | | K. pertaining to animals |
| | | L. relating to exercise |