

臺灣綜合大學系統 114 學年度學士班轉學生聯合招生考試試題

| 科目名稱 | 英文 | 類組代碼 | 共同考科 |
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| | | 科目碼 | E0002 |

■※本項考試依簡章規定所有考科均「不可」使用計算機。 本科試題共計 6 頁

I. Vocabulary 30% 請於答案卡上作答，否則不予計分。

- Many patients require long-term care after _____ from hospital.
(A) dispose (B) discharge (C) disengagement (D) disillusionment
- The new software is _____ with our new computer.
(A) incomprehensible (B) incompetent (C) incompatible (D) incomparable
- It was challenging to guess what Tom's _____ to the news would be.
(A) reflection (B) reaction (C) comment (D) opinion
- According to Charles Darwin, man is _____ from the apes.
(A) originated (B) revolved (C) entailed (D) descended
- The police stopped me the other day as I was driving home, because I was _____ the speed limit.
(A) overtaking (B) exceeding (C) surpassing (D) breaking
- A high _____ rate means your body burns calories more efficiently, which can impact weight management.
(A) Metabolic (B) metallic (C) metaphorical (D) metaphysical
- Due to her great sense of guilt, Jennifer has developed an _____ with cleanliness and has to wash her hands many times a day.
(A) Affection (B) obsession (C) oppression (D) addiction
- If you want to bring your dog with you during your trip abroad, you have to put it in _____ one week before you depart for the airport.
(A) quantum (B) quarantine (C) questionnaire (D) queue
- Please _____ yourself from eating or drinking inside the metro station or the train, since the law forbids them.
(A) refrain (B) restore (C) relocate (D) refer
- Without telephone it would be impossible to carry on the functions of _____ every business operation in the whole country.
(A) practically (B) preferably (C) precisely (D) presumably
- Those officials were suspicious of _____ the big fund which originated from drug trafficking
(A) loaning (B) laundering (C) investing (D) importing
- I was unaware of the critical points involved, so my choice was quite _____.
(A) arbitrary (B) rational (C) mechanical (D) unpredictable
- David is planning another business trip to London, yet his passport will _____ at the end of this month.
(A) expire (B) exceed (C) terminate (D) cease

14. All the soldiers were in high spirits as they read _____ letters from their families.
(A) sentimental (B) affectionate (C) intimate (D) sensitive
15. Jennifer lost her only son during the earthquake. Since then, she has never recovered from this _____ experience and often wept whenever she was alone.
(A) terrific (B) tremendous (C) traumatic (D) transparent

II. Cloze Test 20% (Fill in each blank with the ONE best word or phrase that fits the context)

The emergence of artificial intelligence (AI) in healthcare has been groundbreaking. ____16____ the way we diagnose, treat and monitor patients. This technology is drastically improving healthcare research and outcomes by producing more accurate diagnoses and enabling more personalized treatments. AI in healthcare's ability to **analyze** vast amounts of clinical documentation quickly helps medical professionals identify disease markers and trends that would ____17____ be overlooked. The potential applications of AI and healthcare are broad and far-reaching, **from** scanning radiological images for early detection ____18____ predicting outcomes from *electronic health records*. ____19____ leveraging artificial intelligence in hospital settings and clinics, healthcare systems can become smarter, faster, and more efficient in providing care to millions of people worldwide. Artificial intelligence in healthcare is truly turning out to be the future – transforming how patients receive quality care ____20____ mitigating costs for providers and improving health outcomes.

16.
(A) having reshaped
(B) having been reshaped
(C) has been reshaping
(D) reshaping

17.
(A) otherwise
(B) therefore
(C) henceforth
(D) accordingly

18.
(A) to
(B) from
(C) with
(D) for

19.
(A) By
(B) With
(C) Since
(D) For

20.
(A) when
(B) while
(C) with
(D) for

Depression results from a complex interaction of social, psychological, and biological factors. People who have gone through adverse life events (unemployment, bereavement, traumatic events) are more likely to develop depression. Depression can, in turn, ____21____ more stress and dysfunction and worsen the affected person's life situation and the depression itself.

Depression is closely _____ 22 _____ and affected by physical health. Many of the factors that influence depression (such as physical inactivity or harmful use of alcohol) are also known risk factors for diseases such as cardiovascular disease, cancer, diabetes, and respiratory diseases. In turn, people with these diseases may also find themselves _____ 23 _____ depression due to the difficulties associated with managing their condition.

Prevention programs have been shown to reduce depression. Effective community approaches to prevent depression _____ 24 _____ school-based programs to enhance a pattern of positive coping in children and adolescents. Interventions for parents of children _____ 25 _____ behavioral problems may reduce parental depressive symptoms and improve outcomes for their children. Exercise programs for older persons can also be effective in depression prevention.

21.

- (A) tend to
- (B) deviate from
- (C) result from
- (D) lead to

22.

- (A) related to
- (B) related
- (C) being related to
- (D) being related

23.

- (A) experiencing
- (B) having experienced
- (C) experience
- (D) having been experiencing

24.

- (A) including
- (B) to include
- (C) being included
- (D) include

25.

- (A) with
- (B) of
- (C) in
- (D) for

III. Reading Comprehension 30%

【A】

Xenotransplantation is any procedure that involves the transplantation, implantation or infusion into a human recipient of either (a) live cells, tissues, or organs from a nonhuman animal source, or (b) human body fluids, cells, tissues or organs that have had *ex vivo* contact with live nonhuman animal cells, tissues or organs. The development of xenotransplantation is, in part, driven by the fact that the demand for human organs for clinical transplantation far exceeds the supply.

Currently ten patients die each day in the United States while on the waiting list to receive lifesaving vital organ transplants. Moreover, recent evidence has suggested that transplantation of cells and tissues may be therapeutic for certain diseases such as neurodegenerative disorders and diabetes, where, again human materials are not usually available.

Although the potential benefits are considerable, the use of xenotransplantation raises concerns regarding the potential infection of recipients with both recognized and unrecognized infectious agents

and the possible subsequent transmission to their close contacts and into the general human population. Of public health concern is the potential for cross-species infection by retroviruses, which may be latent and lead to disease years after infection. Moreover, new infectious agents may not be readily identifiable with current techniques.

26. What is xenotransplantation?

- (A) The transplantation of human organs into animals.
- (B) The transplantation of animal-derived materials into humans.
- (C) A surgical procedure to enhance human organ function.
- (D) The study of organ transplantation techniques.

27. What is one primary reason for the development of xenotransplantation?

- (A) To eliminate the need for human organ donors.
- (B) To enhance the immune response of organ recipients.
- (C) To address the shortage of human organs for transplantation.
- (D) To prevent the spread of infectious diseases.

28. According to the passage, how many patients die each day in the U.S. while waiting for organ transplants?

- (A) Five
- (B) Seven
- (C) Ten
- (D) Twelve

29. What potential benefit of xenotransplantation is mentioned in the passage?

- (A) It completely eliminates the risk of infection.
- (B) It offers a cure for all neurodegenerative diseases.
- (C) It may provide therapeutic options for diseases like diabetes.
- (D) It reduces the need for immune suppression in recipients.

30. What is a major public health concern associated with xenotransplantation?

- (A) Increased organ rejection rates in recipients
- (B) The high cost of animal-derived organ transplants
- (C) The potential transmission of retroviruses and new infectious agents
- (D) Limited availability of animal organs for transplantation

【B】

The loneliness of Exile, the difficulties of adjusting to a new life, the wrench of parting, the fear for those left behind – these are only some of the traumas which face millions of refugees the world over. Whether they are exiled in an alien community or in a border refugee camp, they face the reality of months and years – sometimes even a lifetime – of separation, from their family, society, culture and country.

Although the total number of refugees is growing fast and has reached unprecedented levels, efforts to deal with their plight are still inadequate. At the international level, there is the UN Convention on Refugees and the efforts being made by agencies such as the United Nations High Commission for Refugees (UNHCR) and the United Nations Relief and Works Association (UNRWA), while at the national level countries have a wide variety of attitudes. Yet – not even with the best of intentions – has the world found a way to cope with the increasing number of refugees fleeing social, political, racial, religious persecution or economic destitution, in both peace and wartime.

The Refugee Dilemma, Minority Rights Group report 43, has been written by Dr Frances D'Souza and Dr. Jeff Crisp. This new expanded edition now also has a special analysis critically examining the situation in the UK and outlining the work of the British Refugee Council, which provides a case study of value elsewhere. It is an indispensable report, objective yet sympathetic, which will prove of great benefit to teachers, students, community workers, and everyone interested in refugees and their problems.

31. Which of the following is NOT mentioned as a trauma faced by refugees?

- (A) Fear for those left behind
- (B) The loneliness of exile
- (C) Adjusting to a new climate
- (D) The wrench of parting

32. According to the passage, what is the primary issue with current efforts to address the refugee crisis?

- (A) Lack of international awareness.
- (B) Growing hostility toward refugees.
- (C) Insufficient measures to handle the increasing number of refugees.
- (D) The absence of international agreements.

33. Which two organizations are highlighted for their efforts to assist refugees?

- (A) International Red Cross and World Health Organization
- (B) UNHCR and UNRWA
- (C) World Bank and UNICEF
- (D) Amnesty International and Save the Children

34. What is the focus of the "Refugee Dilemma" report written by Dr. Frances D'Souza and Dr. Jeff Crisp?

- (A) An analysis of global refugee camps.
- (B) A study of refugee contributions to host countries.
- (C) A critical examination of the refugee situation in the UK and beyond.
- (D) The historical development of refugee rights.

35. Who is the intended audience for the "Refugee Dilemma" report?

- (A) Politicians and lawmakers
- (B) Teachers, students, community workers, and those interested in refugee issues
- (C) Refugees seeking legal assistance
- (D) Journalists covering international crises

【C】

THEY ARE the chips that power everything from mobile phones to electric cars—and they make up 15% of Taiwan's GDP. Taiwan produces over 60% of the world's semiconductors and over 90% of the most advanced ones. Most are manufactured by a single company, Taiwan Semiconductor Manufacturing Corporation (TSMC). Until now, the most advanced have been made only in Taiwan. The semiconductor industry is called Taiwan's "silicon shield", giving the world a big reason to defend the island. Yet chips are the industry most affected by the split between America and China. Parts of the shield are now moving abroad. In December TSMC held a ceremony to mark the start of a chip plant (or "fab") in Arizona. Joe Biden was there, as were Tim Cook from Apple and TSMC's founder, Morris Chang. Mr Chang said TSMC would triple its investment in Arizona to \$40bn, open a second fab in 2026 and make three-nanometre chips, now the most advanced, in America. Mr Biden declared that "American manufacturing is back, folks." Mr Chang more morosely called globalisation and free trade "almost dead".

The chip industry was built on globalisation, with every part of the supply chain supporting it. TSMC's fabs, based on efficiency and high-skilled, long-hour labour, could make chips faster and more accurately than any rival. Experts agree that replicating this supply chain elsewhere would be inefficient. Mr Chang told reporters in November that the cost of making chips in America would be 55% higher. He reportedly told Nancy Pelosi that American efforts to bring the business home were "doomed to fail". Yet the shift to local supply chains is happening, boosted by covid-19 and the war in Ukraine. Governments want critical tech made in safer places, closer to home. And America and China are competing to control the most sophisticated chips that may prove crucial to the next generation of advanced weapons.

Taiwan is pulled between the two. China has poured \$50bn into chipmaking, hoping to meet 70% of domestic demand for chips by 2025. It has also poached Taiwan's chip engineers, executives and trade secrets. That brain drain has alarmed Taiwan's government, which has raided Chinese chipmakers and passed new laws against economic espionage. America is also trying to stop China getting advanced chips. It passed the CHIPS and Science Act in August 2022, offering \$39bn in subsidies and a 25% tax credit to promote manufacturing at home, as well as \$13bn of investment in chip research. In October 2022 it banned the export of advanced chips and chipmaking gear to China.

36. What percentage of Taiwan's GDP is accounted for by the semiconductor industry?

- (A) 10%
- (B) 15%
- (C) 20%
- (D) 25%

37. According to the passage, why might replicating TSMC's supply chain outside Taiwan be inefficient?

- (A) Lack of skilled labor in other countries
- (B) The inability to produce advanced chips elsewhere
- (C) High costs and challenges in matching Taiwan's efficiency
- (D) Shortages of raw materials

38. What steps has the US taken to reduce China's access to advanced semiconductors?

- (A) Established trade agreements with Taiwan
- (B) Passed the CHIPS and Science Act and banned exports of advanced chips to China
- (C) Invested in Chinese chipmaking companies
- (D) Relocated TSMC's engineers to America

39. What action has China taken to advance its domestic chipmaking capabilities?

- (A) Partnered with TSMC to develop chips locally.
- (B) Invested \$50bn to meet 70% of domestic chip demand by 2025.
- (C) Focused solely on importing advanced chips.
- (D) Built chip plants exclusively for military technology.

40. What was one goal of the CHIPS and Science Act passed by the U.S. in 2022?

- (A) To lower the cost of chipmaking globally.
- (B) To ban the export of semiconductors to Europe.
- (C) To promote domestic manufacturing through subsidies and tax credits.
- (D) To form an international alliance for semiconductor production.

IV. Short Essay Writing (Write a short passage of about 200 words in English as your response to the below passage) 20% 請於答案卷上作答，否則不予計分。

Artificial Intelligence (AI) has enormous value but capturing the full benefits of AI means facing and handling its potential pitfalls. The same sophisticated systems used to discover novel drugs, screen diseases, tackle climate change, conserve wildlife and protect biodiversity can also yield biased algorithms that cause harm and technologies that threaten security, privacy and even human existence.