

慈濟大學 111 學年度學士後中醫學系招生考試

英文科試題

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英文科試題

本試題 (含封面) 共 9 頁: 第 2 頁

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選擇題 (下列為單選題, 共 50 題, 每題 2 分, 共 100 分, 答錯 1 題倒扣 0.7 分, 倒扣至零分為止, 未作答者, 不給分亦不扣分, 請選擇最合適的答案)

I. Vocabulary

- Most people with Type 2 diabetes are overweight, and for those who are, many struggle with weight loss in part due to the high insulin levels that go along with insulin resistance, which is the _____ of Type 2 diabetes.
(A) hallmark (B) hostage (C) hegemony (D) hydrosphere
- As these threatening practices accumulate, they make it more likely that eventually a crisis or militarized dispute will occur that _____ to war.
(A) escalates (B) excoriates (C) exhilarates (D) eviscerates
- Decades ago, *in vitro* fertilization was a _____ technology but now it's an ordinary type of treatment for infertility issues.
(A) cutting-board (B) cutting-edge (C) cutting-down (D) cutting-up
- He accused the contractor of trying to save money by _____ on security.
(A) cutting corners (B) digging around (C) kicking off (D) feeding up
- That country is currently expanding government dominance of its economy and suffering a _____ reduction in economic growth, tech-stock valuations and employment.
(A) resistible (B) nonrefundable (C) fetching (D) concomitant
- The following section _____ the nature of the personal and family visits that have been performed in the past half-century.
(A) evicts (B) gormandizes (C) poaches (D) delineates
- Unfortunately, there is a lot of contradicting and _____ information floating around out there about how distance runners should or shouldn't fuel to run fast.
(A) amiable (B) affectional (C) fallacious (D) imminent
- For decades, as you probably know, researchers have found that when you tell patients that you're giving them medicine, many report that their symptoms are _____, even if they're only taking sugar pills.
(A) intoxicated (B) conglomerated (C) alleviated (D) equivocated
- There are a number of miracle cures on the market for people _____ enough to buy them.
(A) malicious (B) gullible (C) revocable (D) intolerable
- Healthy adaptation (indeed survival) relies on the ability to produce increased levels of cortisol under stress and to reduce production once stress has _____.
(A) engrossed (B) inundated (C) abated (D) reconstituted
- Blowing soap bubbles never fails to delight one's inner child, perhaps because bubbles are intrinsically _____, bursting after just a few minutes.
(A) imperious (B) ephemeral (C) retrievable (D) felicitous
- The dialogue between doctors and patients should be based upon _____ trust.
(A) gastronomic (B) sumptuous (C) mal-functional (D) reciprocal
- Jenny's one-hour _____ with the psychologist cost her nearly four hundred dollars.
(A) detection (B) omission (C) session (D) destitution
- The medical company is developing drugs to _____ disease like AIDS and cancer.
(A) subscribe (B) wallow (C) popularize (D) combat
- Lane's surgical skill, widely renowned, exhibited _____ calm at difficulties encountered during operations.
(A) imperturbable (B) contentious (C) injudicious (D) repugnant

II. Cloze

【A】

Physicians may want to dig a little deeper into their closets, or grab their white coats on the way out of the operating room, if they want patients to view them 16, according to the largest-ever study of patient preferences for doctors' attire. In fact, what medical doctors wear may matter more than most doctors—or even patients—might think, say the researchers of this project.

Based on their findings, they 17 more hospitals, health systems and practice groups to look at their dress standards for physicians, or create them if they 18. Just over half of the 4,062 patients surveyed in the clinics and hospitals of ten major medical centers said that what physicians wear is important to them—and more than one-third said that what a doctor wears influences their satisfaction with their care.

“Professional dress on Wall Street, law and nearly every other industry is relatively clear—and it typically mirrors what applicants 19 to their job interview,” says Christopher Petrilli, M.D., lead author of the study and an assistant professor of hospital medicine at the University of Michigan Medical School, who worked in the finance industry before entering medicine.

“In medicine, the dress code is quite 20, but as physicians we should make sure that our attire reflects a certain level of professionalism that is also mindful of patients' preferences,” explains Petrilli.

- | | | | |
|--------------------------------|-----------------------------|-------------------------------|----------------------------|
| 16. (A) feverishly | (B) fiercely | (C) favorably | (D) flamboyantly |
| 17. (A) call after | (B) call for | (C) call back | (D) call off |
| 18. (A) won't already have one | (B) didn't already have one | (C) wouldn't already have one | (D) don't already have one |
| 19. (A) would wear | (B) to wear | (C) had worn | (D) wears |
| 20. (A) duplicitous | (B) exponential | (C) gangling | (D) heterogeneous |

【B】

The pandemic has underlined the extent 21 digital interaction is no substitute for the real thing. In some ways, I'm more in touch with people than ever thanks to the numerous WhatsApp groups that revived themselves into a constant source of company. But 22 away in a couple of group chats while absent-mindedly watching the latest Netflix offering doesn't come close to the wonderful feeling of hugging a friend, or of spending three hours giving someone you haven't seen for ages your undivided attention over a meal, or of having a conversation based not just on words but physical cues. I doubt the pandemic will seed a long-term distaste for crowds; if anything, I suspect that, if all goes well with the vaccine 23, the coming summer will see a crop of riotous street parties and carnivals.

But a return to life as usual will not mask the emotional toll Covid 24 on so many people. People who suffer from anxiety and depression, women in abusive relationships, children experiencing abuse or neglect at the hands of their parents: they have had it the worst, and their experiences of isolation and loneliness during lockdown could have consequences for their personal relationships that will not magically disappear with a vaccine.

And that is before you factor in the added 25 of the intense financial hardship so many are being forced to endure. As a society, recovering from Covid is about much more than antibodies: it cannot happen without support for those who have experienced its worst financial and mental health impacts.

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|-----------------------|--------------------|--------------------|---------------------|
| 21. (A) to which | (B) for which | (C) of which | (D) by which |
| 22. (A) throwing | (B) tapping | (C) tampering | (D) tearing |
| 23. (A) radius | (B) rollout | (C) revenue | (D) rebuke |
| 24. (A) will have had | (B) will have been | (C) will be having | (D) would have been |
| 25. (A) sequin | (B) sloop | (C) sloth | (D) strain |

【C】

Like most, when I heard last week about the east London teenager who was strip-searched by police at her school, I was horrified. The terrible details of this state-sanctioned 26 of a young girl are horrific enough, but when I learned that it was her teachers who had called the police—who stood outside the room while police officers searched the private parts of a child—I was speechless.

As a teacher, the thought that this could happen somewhere children should be safe is unthinkable. But the truth is, it is time we were honest about the increasing encroachment of policing in our schools. This incident did not occur in a 27. Teachers, once seen as educators and caregivers, are under pressure to become plain-clothes police officers teaching algebra.

In recent years, there has been a growing trend for military-style behaviour management in schools: routine bag searches, detentions for slouching in class, pupils 28 into isolation for not bringing in their lunch money, police officers patrolling school corridors, and Victorian-style hierarchies that deny students their rights and assign authoritarian control to teachers.

29 of this style of behaviour management herald it as refreshingly strict: reminiscent of a bygone era in which schools were places of respect and order. But it's no coincidence that these attitudes to discipline are disproportionately found in schools that serve poor communities with a higher proportion of minority ethnic pupils, enacted in the name of "revolutionising" inner-city comprehensives with bad reputations. Supporters may claim that these rules are no different to those in the best private schools, but rich white children's privileges are not eroded in this way because their 30 is never questioned. How many affluent neighbourhoods have police officers wearing stab vests stationed inside their school?

- | | | | |
|---------------------|-----------------|-----------------|---------------------|
| 26. (A) backdrop | (B) abuse | (C) prohibition | (D) exhumation |
| 27. (A) chaos | (B) mausoleum | (C) vacuum | (D) hearth |
| 28. (A) having sent | (B) sending | (C) send | (D) being sent |
| 29. (A) Proponents | (B) Proprietors | (C) Prodigies | (D) Procrastinators |
| 30. (A) inferiority | (B) creativity | (C) humanity | (D) productivity |

III. Reading Comprehension

【A】

Palaces are known for their beauty and splendor, but they offer little protection against attacks. It is easy to defend a fortress, but fortresses are not designed with the comfort of a king or queen in mind. When it comes to structures that are both majestic and well-fortified, the classic European castle is the pinnacle of design. Across the ages castles changed, developed, and eventually fell out of use, but they still command the fascination of the English culture.

Castles were originally built in England by Norman invaders in 1066. As William the Conqueror advanced through England, he fortified key positions to secure the land he had taken. The castles he built allowed the Norman lords to retreat to safety when threatened by English rebellion. Castles also served as bases of operation for offensive attacks. Troops were summoned to, organized around, and deployed from castles. In this way castles served both offensive and defensive roles in military operations.

Not limited to military purposes, castles also served as offices from which the lord would administer control over his fiefdom. The lord of the land would hold court in his castle. Those who were socially beneath the lord would come to report the affairs of the lands that they governed and pay tribute to the lord. They would address disputes, handle business, feast, and enjoy festivities. In this way castles served as important social centers in medieval England. Castles also served as symbols of power. Built on prominent sites overlooking the surrounding areas, castles constantly loomed in the background of many peasants' lives and served as a daily reminder of the lord's strength.

The first castles constructed in England were made from earth and timber. Those who constructed them took advantage of natural features, such as hills and rivers, to increase defenses. Since these castles were constructed from wood, they were highly susceptible to attacks by fire. Wooden castles were gradually replaced by stone, which greatly increased the strength of these fortifications; however, being made from stone did not make these castles entirely fireproof. Attackers could hurl flaming objects into the castle through the windows or ignite the wooden doors. This led to moving the windows and entrances off of the ground floor and up to the first floor to make them more difficult to access.

As the nobility accumulated wealth, England became increasingly attractive to those who sought to plunder. Raids by Vikings and other marauders increased in regularity. In response to these attacks, castle defenses were updated and improved. Arrow-slits were added. These were small holes in the castle, large enough for an arrow to fit through, which allowed defenders to fire from nearly invulnerable positions. Towers were built from which defenders could provide flanking fire. These towers were connected to the castle by wooden bridges, so that if one tower fell, the rest of the castle was still easy to defend. Multiple rings of castle walls were constructed, so that even if attackers made it past one wall, they would be caught on a killing ground between inner and outer walls. Advances such as these greatly increased the defense of castles.

The demise of castles can ultimately be attributed to gunpowder. Gunpowder was first introduced to Europe during the 14th century, but the first gunpowder weapons were unreliable, inaccurate, and weak by later standards. During the 15th century, artillery became powerful enough to break through stone walls. This greatly undermined the military role of castles. Castles were then replaced by artillery forts that had no role in civil administration and country houses that were indefensible. Though castles no longer serve their original purposes, remaining castles receive millions of visitors each year from those who wish to experience these majestic vestiges of a time long passed.

31. Which is **NOT** a function of castles as expressed in this passage?
- (A) Castles were symbols of power. (B) Castles were places for religious activities.
(C) Castles were important social centers. (D) Castles served military purposes.
32. Which of the following is **NOT** a feature of the castles described in this passage?
- (A) Multiple castle walls providing layers of defenses
(B) Windows and entrances raised off of the ground floor
(C) Towers attached to the main castle by wooden bridges
(D) Deep ditches filled with water dug around the castle walls
33. Which best explains how gunpowder ended the role of traditional castles?
- (A) Wars were fought with guns and hiding in castles was no longer necessary.
(B) Artillery forts with large cannons became more stylish than traditional castles.
(C) Cannons were able to knock down stone walls, so castles offered little protection.
(D) Defending castles became difficult, since attackers could just shoot castle defenders.

34. The following are the main ideas of the paragraphs. Which paragraph's main idea is **CORRECTLY** described?
- (A) Paragraph Two: It describes why William the Conqueror attacked England.
 - (B) Paragraph Three: It details all the purposes that English castles served.
 - (C) Paragraph Five: It details the new features added to increase castle defenses.
 - (D) Paragraph Six: It describes the pros and cons of the invention of gunpowder.
35. Which of the following is **NOT** stated in the passage?
- (A) Castles no longer serving their original purposes were considered monstrous.
 - (B) William the Conqueror built the first castles in England.
 - (C) Stone castles were more resistant to fire than the wooden ones.
 - (D) Castles were used as offices of administration during the Middle Ages.

【B】

Xenobots, named after the African clawed frog (*Xenopus laevis*), are synthetic lifeforms that are designed by computers to perform some desired functions and built by combining together different biological tissues. Whether xenobots are robots, organisms, or something else entirely remains a subject of debate among scientists.

The first xenobots were built by Douglas Blackiston according to blueprints generated by an AI program. Xenobots built to date have been less than one millimeter wide and composed of just two things: skin cells and heart muscle cells, both of which are derived from stem cells harvested from early frog embryos. The skin cells provide rigid support and the heart cells act as small motors, contracting and expanding in volume to propel the xenobot forward. The shape of a xenobot's body and its distribution of skin and heart cells are automatically designed in simulation to perform a specific task, using a process of trial and error (an evolutionary algorithm). Xenobots have been designed to walk, swim, push pellets, carry payloads, and work together in a swarm to aggregate debris scattered along the surface of their dish into neat piles. They can survive for weeks without food and heal themselves after lacerations.

Xenobots can also self-replicate via "kinetic replication"—a process that is known to occur at the molecular level but has never been observed before at the scale of whole cells or organisms. They can gather loose stem cells in their environment and form them into new xenobots with the same capability.

Currently, xenobots are primarily used as a scientific tool to understand how cells cooperate to build complex bodies during morphogenesis. However, the behavior and biocompatibility of current xenobots suggest several potential applications to which they may be put in the future.

Given that xenobots are composed solely of frog cells, they are biodegradable. And as swarms of xenobots tend to work together to push microscopic pellets in their dish into central piles, it has been speculated that future xenobots might be able to do the same thing with microplastics in the ocean: find and aggregate tiny bits of plastic into a large ball of plastic that a traditional boat or drone can gather and bring to a recycling center. Unlike traditional technologies, xenobots do not add additional pollution as they work and degrade: they behave using energy from fat and protein naturally stored in their tissue, which lasts about a week, at which point they simply turn into dead skin cells.

In future clinical applications, such as targeted drug delivery, xenobots could be made from a human patient's own cells, which would bypass the immune response challenges of other kinds of micro-robotic delivery systems. Such xenobots could potentially be used to scrape plaque from arteries, and with additional cell types and bioengineering, locate and treat diseases.

36. How do xenobots produce new xenobots?
- (A) They collect loose stem cells and form them into new xenobots.
 - (B) They produce new xenobots by way of cell degradation.
 - (C) They use frog embryos to produce new xenobots.
 - (D) New xenobots could only be generated by computers.
37. What are xenobots primarily used for at present?
- (A) They are used to deliver medicine and clean arteries.
 - (B) They are experimented to gather microplastics in the ocean.
 - (C) They are designed to imitate human movements, such as walking and swimming.
 - (D) They are a scientific tool to understand how cells cooperate to build complex bodies.
38. According to the passage, xenobots are environment friendly because _____.
- (A) they are powered by batteries
 - (B) they eat microplastics in the ocean
 - (C) they become dead cells after a week or longer
 - (D) they are less than one millimeter wide
39. Which of the following statements about xenobots is **NOT** correct?
- (A) They are capable of self-healing.
 - (B) They all have the same body shape and weight.
 - (C) They move and work together in groups.
 - (D) The heart cells are what make them move forward.
40. Which would be the best title for this passage?
- (A) The Father of Xenobots
 - (B) Xenobots: the First Synthetic Lifeform Robots
 - (C) When Xenobots Have Been Developed
 - (D) Ultimate Application of AI Technology

【C】

The earliest recorded reference to oral disease is from an ancient (5000 BC) Sumerian text that describes “tooth worms” as a cause of dental **decay**, and there is historical evidence that the Chinese used acupuncture around 2700 BC to treat pain associated with tooth decay. And in ancient Egypt, written between 1700 and 1500 BC, there were references to substances to ease pain and treat decay in teeth. Aesculapius, a Greek physician, who lived between 1300 and 1200 BC is credited by many with the concept of extracting diseased teeth. Throughout the Middle Age in Europe, dentistry was made available to the wealthy by physicians who would go to their homes. Dentistry for the poorer people took place in the market places, where self-taught vagabonds would extract teeth for a small fee. From the Middle Ages to the early 1700s, much dental work was provided by so called “barber surgeons.” Pierre Fauchard (1678-1761), a French surgeon, is credited with being the “father of modern dentistry.”

Dental practitioners migrated to the American colonies in the 1700s and devoted themselves primarily to the removal of diseased teeth and insertion of artificial dentures. Until the mid-1800s, dentures continued to be individually constructed by skilled artisans. Gold, silver, and ivory were common components, causing them to be very expensive and available only to the very wealthy. In 1851 a process to mould material against a model of the patient’s mouth and attach artificial porcelain teeth allowed the manufacture of less expensive dentures. Later, acrylic plastics replaced the use of rubber and porcelain in denture construction.

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A major contribution came from Horace Wells in 1844 when he initiated the use of nitrous oxide (laughing gas), founding the concept of inhalation analgesia and anesthesia. The medical community later adopted inhalation anesthesia as a standard surgical practice. Greene Vardiman Black (1831-1915) was the leading reformer of American dentistry. He devised a foot engine that allowed the dentist to keep both hands free while powering the dental drill. He also developed modern techniques for filling teeth based upon biological principles and microscopic evaluation, and proposed that dental caries and periodical disease were infections initiated by bacteria—not confirmed scientifically, however, until the early 1960s.

41. The word “**decay**” in line 2 is closest in meaning to _____.
(A) proper treatment (B) worsened condition (C) the deceased (D) bad denture
42. What does the author imply about removing diseased teeth in ancient times?
(A) There were many handy tools used at that time.
(B) It was only available to the wealthy at their homes.
(C) Aesculapius contributed to the treatment by extracting diseased teeth.
(D) It was an alternative to acupuncture although the Chinese had been using it for a long time.
43. According to the passage, modern dentistry dates from _____.
(A) 1400-1200 BC (B) the mid 1600s (C) the early 1700s (D) the mid 1800s
44. According to the passage, cheaper dentures were available when _____.
(A) a model of the patient’s mouth could be taken to attach artificial procelain teeth
(B) artificial golden teeth could be attached to the patient’s mouth
(C) gold, silver, and ivory were no longer so commonly used
(D) implantations became standard procedures
45. According to the passage, modern techniques for dental fillings were developed _____.
(A) when bacteria-related infections were scientifically confirmed and proved
(B) when the dentists could use only one hand while operating a dental drill
(C) when laughing gas was no longer used for inhalation analgesia and anesthesia
(D) when they were based upon biological principles and microscopic evaluation

【D】

For more than two years, people everywhere have been in the grip of a pandemic—but not necessarily the same one. In the affluent world, a viral respiratory disease, Covid, suddenly became a leading cause of death. In much of the developing world, by contrast, the main engine of destruction wasn’t this new disease, but its second-order effects: measures people took in response to the coronavirus. Richer nations and poorer nations differ in their vulnerabilities.

Whenever I talk with members of my family in Ghana, Nigeria and Namibia, I’m reminded that a global event can also be a profoundly local one. Lives and livelihoods have been affected in these places very differently from the way they have in Europe or the US. That’s true in the economic and educational realms, but it’s true, too, in the realm of public health. And across all these realms, the stakes are often life or death.

The three countries I mentioned have a median age between 18 and 22 years, and the severity of Covid discriminates sharply by age. A big way that Covid can kill is by hampering the management of other diseases, such as HIV, malaria and TB. In Africa alone, 26 million people are living with HIV and, in a typical year, several hundreds of thousands die of it, while malaria, which is especially deadly to infants and toddlers, claims almost 400,000 lives.

Those are big numbers, and yet they used to be much bigger—a major healthcare effort brought them down. Amid the pandemic, though, people stopped visiting clinics, in part because it became harder to get to them, and healthcare workers had to curtail their own movements. According to a Global Fund survey of 32 countries in Africa and Asia, prenatal care visits dropped by two-thirds between April and September 2020; consultations for children under five dropped by three-quarters.

Public-health experts predict that, as an indirect consequence of the Covid pandemic, twice as many people around the world could be at risk of dying from malaria. There could be 400,000 extra deaths from TB in the next few years, and half a million extra deaths from HIV. Across much of the world, in short, the response to the coronavirus has ushered in a shadow pandemic. The coronavirus's real death toll, then, has to be calculated not just in deaths from Covid, but also in deaths that would otherwise have been prevented, from malaria, TB, HIV, diabetes and more.

This shadow pandemic isn't simply a story about disease—it's about poverty, hunger, truncated education and stunted lives. A suggestive comparison can be made with the climate crisis. In the affluent world, some people think of climate breakdown as a matter of how long the air conditioning stays on, but for many in the developing world, it's already a matter of floods, droughts and famine.

46. What does “shadow pandemic” refer to?
- (A) It refers to the chain effects brought about by the Covid pandemic.
 - (B) It refers to truncated education because of the Covid pandemic.
 - (C) It refers to the death tolls that were caused by the coronavirus.
 - (D) It refers to the economic destructions caused by the Covid pandemic on a global scale.
47. This essay may move on to the discussion of the following issues **EXCEPT** ____.
- (A) education
 - (B) regional conflicts
 - (C) healthcare problems
 - (D) economic recession
48. Which is the best title of this passage?
- (A) A Tale of Two Pandemics
 - (B) The Southern Hemisphere Amidst the Covid Pandemic
 - (C) The Survival of the Poor Countries in the Covid Pandemic
 - (D) Europe Suffers Fatal Consequences of the Covid Pandemic
49. Which is **NOT** true according to the available information in the passage?
- (A) Extra deaths from TB and HIV may be due to the inaccessibility of clinics.
 - (B) The African countries mentioned in the passage have younger population.
 - (C) The climate crisis affects different countries differently.
 - (D) The damage caused by the Covid pandemic is comparable to that of global recession.
50. Which is true according to the available information in the passage?
- (A) We are able to confirm the stance and the nationality of the writer of this passage.
 - (B) European countries are the center of attention in this passage.
 - (C) African people may be more vulnerable to diseases other than Covid.
 - (D) After the outbreak of the Covid pandemic, healthcare projects had provided better services in African countries.