

國立屏科實驗高級中等學校115學年度第3次專任教師甄選

高中部 英文科教師 初試試題

※ 考試時間：10：00～12：00，共 120 分鐘。

※ 本試題為申論題，共4頁，滿分100分。

※ 答案卷共5頁，請務必清楚標示題號以供評閱。交卷時，請連同本試題卷一併繳回。

I. Summary and Cloze Test Design 20%

Please summarize the following passage in **180-200** words (**10%**) and design **five** multiple-choice cloze questions for 11th graders (**10%**). Each question must include four alternatives, (A), (B), (C), and (D), with one of them being the best answer. Answers to each question must be provided.

Have you ever entered a dark, old building and suddenly felt an overwhelming sense of dread or chills running down your spine? While many automatically attribute such eerie experiences to supernatural entities, scientific research suggests a more rational explanation: infrasound. Infrasound refers to low-frequency sound waves below 20 Hertz, which are completely imperceptible to the human ear. Although we cannot consciously hear these sound waves, our bodies and emotions still react to them in profound ways.

In a landmark experiment conducted at a famous haunted house attraction, researchers investigated how exposure to subtle infrasound impacts human physiology and emotional states. The results revealed that even brief exposure to these invisible acoustic waves can induce a heightened state of anxiety, discomfort, and mental unrest. More importantly, physiological tests demonstrated a significant spike in participants' cortisol levels—the body's primary stress hormone.

Biologically speaking, the release of cortisol is an evolutionary adaptation designed to trigger a "fight-or-flight" state during immediate danger. However, when triggered by inaudible sound waves in an unfamiliar setting, this heightened alertness often manifests as unexplained fear. For individuals who already hold superstitious beliefs, this physical reaction is easily interpreted as evidence of ghosts or paranormal activity. Conversely, a skeptical individual in the same environment might simply judge the location as uncomfortable or poorly ventilated.

The implications of this study extend beyond merely debunking ghost stories. Infrasound is surprisingly pervasive in our modern world, generated by natural phenomena like wind and earthquakes, as well as artificial sources such as heavy traffic, industrial machinery, and ventilation systems. Prolonged exposure to low-frequency noise in daily life could silently compromise psychological well-being and elevate chronic stress. Ultimately, this research demonstrates that what we cannot hear can still exert a powerful influence over our emotions and perception of reality.

II. 混合題出題 20%

說明：請仔細閱讀以下文章後，設計適合高三學生的大考新式學測混合題題組（共三小題），並提供答案：

1. 摘要填充題：下列簡短敘述摘記上方文章重點。請從文章中找出兩個單詞，分別填入下列句子空格中，並視句型結構需要做適當的字形變化，使句子語意完整、語法正確，並符合全文文意。每格限填一個單詞（word）。（摘要敘述 6%、2 單詞空格出題 4%）
2. 多選題(7%)
3. 簡答題 (3%)

When it comes to on-screen wildlife friendships, the bond between Timon and Pumbaa from Disney's *The Lion King* is a classic. The wise-cracking meerkat and his loveable warthog sidekick go everywhere together. However, the hard truth is that not only do meerkats and warthogs not hang out together, but meerkats don't even live in Kenya. Even in countries like Botswana and Namibia, where they both reside, these animals don't really associate.

Despite that, Africa's fauna features genuine "dynamic duos" engaging in mutualism—a mutually beneficial, win-win relationship between two organisms that helps shape biodiversity and serves as a sign of a healthy ecosystem. In reality, drongos, a species of small birds, help warn meerkats of impending danger with their loud calls; mongooses, cat-like carnivores that bear some similarities to meerkats, pick and eat ticks and parasites from a warthog's hair. This way, warthogs get clean, while mongooses dine in style. Beyond these, three iconic real-life symbiotic relationships stand out.

During the dry season, while elephants are busy digging holes to find underground springs for replenishment, olive baboons climb trees to keep a lookout for predators (notably lions) that may prey on young elephants. In exchange for their assistance, baboons gain access to the elephants' watering holes. This relationship is most evident in Eritrea.

Another partnership exists during East Africa's Great Migration where wildebeests and zebras realize there is safety in numbers since the open plains they're traversing increase the vulnerability of both species. Wildebeests use their strong senses of hearing and smell to detect predators and locate water sources, while Zebras use their incredible memory to retrace migration routes and keen eyesight to scan the horizon for predators. Furthermore, zebras plow through tall grasslands like a lawnmower when dining, leaving wildebeests with the sweet, short grasses they prefer.

Although an unusual pairing, ostriches and zebras complement each other in defending against predators like lions, hyenas, and cheetahs. Ostriches use their long necks and superb eyesight to serve as lookouts. Meanwhile, zebras can rotate their ears in any direction to pinpoint nearby predators and use sensitive taste buds to determine safe food for both parties. In addition, both zebras and ostriches have extremely powerful kicks. Together, they make a formidable team.

III. Curriculum design 20%

Design an 18-week syllabus for an English elective course which navigates toward 2030 Bilingual Initiative for 11th-graders. The course should meet for two hours per week and aim to develop students' communication and presentation skills using SDGs as core content.

IV. Lesson Plan 20%

As a homeroom teacher, you have noticed that Grade 12 students in their final semester increasingly rely on generative AI tools to explore university options and prepare application materials. However, this growing dependency has also heightened their anxiety, self-doubt, and uncertainty regarding their future academic and career paths.

Based on the Curriculum Guidelines of 12-Year Basic Education, design a two-period flexible learning lesson plan using the following reading text. The lesson should integrate the core components of Social-Emotional Learning (SEL) to help your students manage AI-induced anxiety and build emotional resilience. In your response, you should:

1. state the learning objectives of the two-period lesson;
2. explain how the lesson reflects SEL core competencies and aligns with the principles of the Curriculum Guidelines; and
3. provide a detailed lesson plan for each of the two class periods (50 minutes per period), including teaching procedures, learning activities, instructional materials, time allocation, and assessment methods.

Please present your lesson plans in a clear and well-organized format.

The rapid integration of artificial intelligence (AI) has fundamentally transformed how high school seniors approach university admissions and application preparation. According to research by EAB, nearly half of high school seniors actively utilize generative AI tools—such as ChatGPT, Gemini, and Perplexity—to streamline their college searches and draft application materials. These digital tools act as surrogate advisors, synthesizing institutional data into customized summaries regarding tuition, academic programs, and personal preferences.

However, this technological shift presents a profound double-edged sword. While AI offers unprecedented speed and convenience, student trust in automated outputs remains nuanced; fewer than 30% of student users routinely verify AI-generated content against official university sources. Furthermore, over half of surveyed teens express skepticism toward automated communication, seeking instead authentic human interaction and transparent guidance during this crucial transition.

Beyond altering information-gathering habits, heavy reliance on AI tools is quietly amplifying psychological distress among graduating seniors. Roughly 39% of students report that AI-generated insights have prompted them to question the long-term value of a traditional college degree. Rather than feeling empowered by technological convenience, many seniors experience heightened anxiety, self-doubt, and existential uncertainty regarding how rapid automation will transform the future job market and potentially render their chosen career paths obsolete.

Ultimately, this transitional phase creates a profound paradox for Grade 12 students in their final semester. While generative AI offers unmatched efficiency for academic planning, it simultaneously exacerbates emotional pressure and future-oriented anxiety, leaving students struggling to balance technological utility with psychological well-being.

V. Essay Question 20%

Recently, frontline teachers in Taiwan have been faced with two challenges:

1. Theoretically, the integration of educational technology should optimize second language acquisition. In reality, its presence and prevalence often fail to improve learning outcomes. Critically analyze the pedagogical reasons behind this gap, and propose practical, actionable solutions tailored for senior high school English classrooms. (10%)
2. Recent news reported that listing student numbers on the blackboard for missing assignments was ruled as "inappropriate discipline" due to privacy concerns and perceived "labeling/public shaming." Teachers are under intense scrutiny regarding student privacy, parent communication, and personal data protection, often leading to defensive teaching practices. As a senior high school teacher, what are your opinions about the challenges? What pedagogical strategy would you employ to address this issue effectively? Please specify your approaches with concrete examples. (10%)

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