考試開始鈴響前,不得翻閱本試題!

★考試開始鈴響前,考生請注意:

- 一、不得將智慧型手錶及運動手環等穿戴式電子裝置攜入試場,違者扣減其該科成績五分。
- 二、除准考證、應考文具及一般手錶外;行動電話、穿戴式裝置及其他物品均須放在臨時置物區。請務必確認行動電話已取出電池或完全關機,行動電話及手錶的鬧鈴功能必 須關閉。
- 三、就座後,不可擅自離開座位。考試開始鈴響前,不得書寫、劃記、翻閱試題本或作答。
- 四、坐定後,雙手離開桌面,檢查並確認座位標籤與電腦答案卡之准考證號碼是否相同。
- 五、請確認抽屜中、桌椅下、座位旁均無其他非必要用品。如有任何問題請立即舉手反映。

★作答説明:

- 一、本試題(含封面)共12頁,如有缺頁或毀損,應立即舉手請監試人員補發。
- 二、選擇題答案請依題號順序劃記於電腦答案卡,在本試題紙上作答者不予計分;電腦答案卡限用 2B 鉛筆劃記,若未按規定劃記,致電腦無法讀取者,考生自行負責。
- 三、選擇題為單選共 50 題,答案 4 選 1, 每題 2 分, 每題答錯倒扣 0.7 分, 不作答不計分, 請選擇最合適的答案。
- 四、本試題必須與電腦答案十一併繳回,不得攜出試場。

	Vocabulary, Usage and C				
(Questions 1-15: Choose t	he <u>BEST</u> answer to cor	nplete each sentence.		
1.	The busload of tourists s	suddenly saw the movie	e star and basically	_ over the side of the bus	
	screaming her name.				
	(A) creeped	(B) drooped	(C) subsided	(D) tinkered	
2.	For the third year in a r	row, the phrase	in ubiquity in late-May	v/early-June, according to	
	Google Trends. Indeed,				
	(A) surmounted	(B) sputtered	(C) steered	(D) spiked	
3.	Numerous leaks in recent days claim the President is at odds with most of his senior team,				
	allegedly deliberately co	ountermanding their bes	advice like an toddler.		
	(A) obsequious	(B) obstreperous	(C) opprobrious	(D) ostentatious	
4.	British politicians can s	ay all sorts of rubbish	to the BBC that would	n't count as a crime, but	
	government ministers ar	e not supposed to know	vingly mislead — artfull	y?	
	(A) authenticate	(B) disambiguate	(C) enumerate	(D) prevaricate	
5.	Emily tried to finish the	project alone but in vai	n, so eventually she had	l to	
	(A) lose her marbles		(B) slap in the face		
	(C) throw in the towel		(D) stir the pot		
6.	The small nation felt	to its powerful neigh	hbor, obliged to obey ev	ren when it didn't want to.	
	(A) subsequent	(B) subservient	(C) subliminal	(D) subversive	
7.	The scientists are pushing	ng the of what's p	possible in space explor	ation, trying to go beyond	
	the normal limits.				
	(A) letter	(B) package	(C) envelope	(D) container	
8.	The diplomat's re	stion left reporters unsu	re about the government's		
	actual position on the ma				
	(A) equivocal	(B) luxurious	(C) deprecating	(D) feudalistic	
9.				the newly implemented	
	policy, designed to streamline operations and cut unnecessary expenses, would actually yield the				
	intended financial benef		(0) 1 1	(D) 1 4 34	
	(A) of whether	(B) if whether	(C) whether	(D) whether with	
10.	_	f microscopic organisms,			
		gnificant life form could			
	produce energy at an eff (A) even such	(B) that as	(C) how such	(D) what so	
1 1	, ,	, ,	,		
11.	Unless she presented a compelling argument supported by strong evidence, the board her proposal without further discussion.				
	(A) should merely objection		(B) must possibly ref	nise	
	(C) would likely have rejected		- · · · · · · · · · · · · · · ·	(D) could scarcely disapprove	
	(C) Would likely have rejected		(D) could scarcely disapprove		

12. The project advanced _	, as unpredictable	e funding delays and	shifting team dynamics					
repeatedly interrupted the	e momentum that had be	riefly gathered.						
(A) by fits and starts		(B) in dribs and drabs						
(C) by leaps and bound	ls	(D) through tit for tat						
13 about the traffic, I	would have left earlier.							
(A) If I knew	(B) Knowing	(C) If I have known	(D) Had I known					
14. Which of the following s	entences is grammatical	lly correct?						
(A) She avoided to spe	eak during the meeting.							
(B) The lecturer recom	nmended to read a numb	per of books before the e	exam.					
(C) They enjoy to swin	(C) They enjoy to swim in the lake during summer.							
(D) I asked to see his i	(D) I asked to see his identification before I let him into the house.							
15. Which of the following s	entences is NOT gramm	matically accurate?						
(A) Whatever you deci	ide is fine with me.							
(B) Whoever arrives fi	(B) Whoever arrives first gets the best seats is the rule.							
(C) What he said both	ered everyone in the roc	om.						
(D) How this device w	orks confuses many stu	dents.						
II. Cloze								
Questions 16-25: Choose	the BEST answer for ea	ich blank in the passage	S.					
Passage A								
Loneliness is a common pro	blem in long-term care	facilities (LTCF). Previo	ous work has shown that					
animal-assisted therapy (AAT) can to some degree 16 loneliness. Here, we investigated the ability								
of a living dog (Dog) as oppo	osed to that of a robotic	dog (AIBO) to treat lone	eliness in elderly patients					
living in LTCF. 17 a co	ontrol group not receiving	ing AAT, both the Dog	and AIBO groups had					
statistically significant improvements in their levels of loneliness. 18 a modified Lexington								
Attachment to Pets Scale (M	LAPS), residents showe	ed high levels of attachn	nent to both the Dog and					
AIBO. Subscale analysis sho	owed that the AIBO gro	oup scored lower than the	e living dog on "animal					
rights/animal welfare," 19	"general attachment	" or "people substituti	ng." However, MLAPS					
measures 20 changes in	loneliness, showing that	t attachment was not th	ne mechanism by which					
AAT defeats loneliness. We d	conclude that interactive	robotic dogs can help L	TCF residents cope with					
loneliness as they become at	tached to thes robots.							
16. (A) reverse	(B) reanimate	(C) remit	(D) reckon					
17. (A) With regards to		(B) By means of						
(C) In collaboration wit	[:] h	(D) In comparison with						
18. (A) To measure		(B) As measured by						
(C) Measuring up to		(D) Taking the measure	e of					
19. (A) without	(B) as well as	(C) but not on	(D) in spite of					
20. (A) did not correlate with	th	(B) were in consensus	with					

(D) corresponded to

(C) were coordinated by

Passage B

Charles Dickens, one of the most celebrated novelists of the 19th century, is known for his vivid storytelling and social criticism. His novel *Great Expectations*, first published in 1861, remains one of his most widely studied works. The novel follows the life of Pip, an orphan who, through a series of mysterious events, 21 a fortune and undergoes a dramatic transformation. A central theme in *Great Expectations* is the conflict of social class. Pip initially believes that wealth and refinement equate to moral superiority, but 22 he matures, he learns that true virtue lies in kindness and integrity rather than status or fortune. This theme reflects Dickens's own concerns about Victorian society, 23 rigid class divisions often determined one's fate. One of the novel's most compelling characters is Miss Havisham, a wealthy but 24 woman who has worn her wedding gown and remained in her decaying mansion since being abandoned at the altar. She raises Estella, the object of Pip's affection, to be cold and unfeeling, perpetuating a cycle of emotional detachment. 25 , *Great Expectations* is a profound critique of ambition and self-discovery, highlighting the fleeting nature of human desires and the unpredictability of fate.

21. (A) turns into	(B) comes into	(C) steps up	(D) falls down
22. (A) although	(B) despite	(C) if	(D) as
23. (A) where	(B) what	(C) there	(D) why
24. (A) eccentric	(B) benevolent	(C) content	(D) affluent

25. (A) Rarely (B) Accidentally (C) Ultimately (D) Centrally

III. Discourse Structure

Questions 26-35: Choose the **BEST** answer from the box below for each blank in the passages.

Passage A

- (A) Nerli conducted a randomized clinical trial to investigate the efficacy of a brief outpatient rehabilitation program using a cognitive behavioral approach for PCC.
- (B) Over the past few decades, substantial evidence has amassed for the efficacy of CBT for symptoms in the context of somatic conditions, including chronic fatigue syndrome.
- (C) Theoretically, given that physiologic, cognitive, behavioral, and social processes are correlated, it follows that change in one system will bring about a change in the others.
- (D) So far, there should be no other explanation for the symptoms that may substantially impact daily activities.

The post-COVID-19 condition (PCC) is often referred to as long COVID. It is characterized by persistent, fluctuating symptoms, such as fatigue, breathlessness, and cognitive difficulties affecting all systems of the body three months or more after infection consistent with SARS-CoV-2. 26

Among the treatments of long COVID, cognitive behavior therapy (CBT), a practical approach to treating symptoms and distress, is now widely recommended. It encourages individuals to test different ways of coping. 27 CBT focuses on things that can be changed, such as behavior and patterns of thinking. The behavior change component has much in common with rehabilitation.

<u>28</u> In addition, psychosocial interventions, especially CBT, have been found to positively change immune system functioning. Cognitive behavior therapy is not only positively associated with immune parameters, but also outperforms pharmacologic treatments.

Passage B

- (A) Numerous other studies have documented the robust relationship between early phonological awareness and subsequent reading achievement.
- (B) In a later review, Torgesen (1999) concluded that the limited amount of information gained from the assessment of phonological awareness may not warrant the use of a phonological awareness assessment given the amount of time needed to administer, score, and interpret such an assessment.
- (C) Additionally, deficits in phonological awareness have been linked to reading disabilities.
- (D) This possibility has led reading researchers to question the usefulness of phonological awareness assessments once a certain level of reading achievement has been attained.

Speech-language pathologists (SLPs) are actively involved in the development of literacy skills and in the remediation of literary problems. In particular, SLPs have an important role in the assessment of phonological awareness due to their knowledge of phonetics and phonological disorders. Phonological awareness has been shown to be a primary factor underlying early reading achievement. 29 The assessment of phonological awareness during preschool and kindergarten provides critical insight into the skills that children use to learn to read. Lonigan, Burgess, and Anthony (2000) demonstrated that phonological awareness, when compared to many other predictors, was the most stable and robust indicator of later reading in a group of children who were followed from late preschool into kindergarten and first grade. In another data set, Catts, Fey, Zhang, and Tombling (2001) found that a kindergarten measure of phonological awareness was one of five factors that predicted the presence of a reading disability in second grade. 30 Once children begin reading, however, the best indicator of current and future reading may simply be reading itself. 31 Wagner and his colleagues considered this issue using a large, longitudinal data set. They examined the amount of information that a measure of phonological awareness could add to the prediction of reading once a measure of current word reading and vocabulary was considered.

Passage C

- (A) The etymology of "Karen" remains contested, with multiple potential origins identified in popular culture, movies and media.
- (B) This tension demonstrates how contemporary internet culture rapidly codifies, disseminates, and normalizes new forms of social critique.
- (C) This pejorative designation typically refers to upper-middle-class white American women perceived as exhibiting entitled behavior, particularly in service-oriented contexts.
- (D) Visual signifiers, most notably a distinctive blonde-highlighted bob haircut, have become associated with the archetype as often seen in these widespread memes.

The derogatory image of "Karen" has emerged as a significant sociocultural phenomenon in contemporary American discourse, representing a particular demographic stereotype that merits scholarly examination. 32 The phenomenon gained substantial visibility during 2020, concurrent with both the COVID-19 pandemic and social justice protests, prompting *The Guardian* to designate it as "the year of Karen."

<u>33</u> For example, the character portrayed by Amanda Seyfried in the 2004 film *Mean Girls*, Dane Cook's 2005 comedy sketch "The Friend Nobody Likes," and a 2016 Nintendo Switch advertisement featuring a woman characterized as "antisocial Karen." Digital anthropologists note that the term gained significant traction in late 2017 when Reddit users began creating and sharing memes regarding entitled women named "Karen," leading to specialized subreddits dedicated to critiquing this behavioral archetype.

According to Professor Heather Suzanne Woods, whose research encompasses meme culture, the defining characteristics of a "Karen" include a sense of entitlement, a proclivity for complaint, and self-centered interpersonal interactions. These characteristics manifest in stereotypical behaviors such as demanding to "speak to the manager," expressing anti-vaccination sentiments, demonstrating racial prejudice, and exhibiting excessive engagement with social media platforms, particularly Facebook. 34

The discourse surrounding "Karen" exemplifies the intersection of race, gender, class, and privilege in American society. While scholars such as Apryl Williams argue these characterizations function to "actively call out white supremacy," critics contend the term itself constitutes a problematic form of prejudice that encompasses racist, sexist, ageist, and classist elements. <u>35</u> Meanwhile it simultaneously raises questions about the ethics and efficacy of such characterizations in advancing social justice objectives.

IV. Reading Comprehension

Questions 36-50: Choose the **<u>BEST</u>** answer to each question below according to what is stated and implied in the following passages.

Passage A

This survey study examined the availability and types of survivorship services for adult-onset cancer across ACS CoC–accredited programs, which provide cancer care to 75% of U.S. patients. The findings highlight both widespread availability of certain services and significant gaps, identifying areas for improvement. Establishing this national benchmark enables tracking progress and assessing new approaches in survivorship care.

Despite being recognized as an essential phase of cancer treatment, survivorship care remains underdeveloped. Nearly 90% of programs offer screening for new or recurrent cancers and specialty referrals for late-effect management. However, services such as cancer genetics counseling, fertility, and sexual health support are less available, despite patient-reported importance. Additionally, few programs offer patient support groups, fitness programs, or educational series, largely due to lack of insurance reimbursement. These findings align with a 2024 study by Anampa-Guzmán et al., which also noted the underrepresentation of genetic counseling and fertility services.

Survivorship care plans and treatment summaries are intended to provide critical health information to survivors and practitioners. While recent studies question their value due to high resource demands, over 90% of programs still provide them, suggesting either perceived benefits or the lingering effects of accreditation requirements.

Most programs integrate survivorship care within the cancer treatment team, while only one-third offer specialized survivorship clinics. This contrasts with pediatric oncology, where late-effects clinics are standard. Specialized clinics are more common in comprehensive cancer centers than in community-based settings. The American Society of Clinical Oncology supports a disease-and treatment-specific survivorship model, which may be more practical for adult-onset cancers given their higher prevalence. Further research is needed to determine optimal care models based on cancer type, age, and risk factors.

Institutional support for survivorship programs remains limited. Programs report lacking funding, dedicated staff, marketing, philanthropy, and technological infrastructure. The most needed resources include dedicated advanced practice clinicians (APCs), improved IT support, and greater internal visibility. Surprisingly, acquiring survivorship physicians, external marketing, research, and philanthropy were lower priorities.

Although nearly 90% of programs recognize the benefits of survivorship services, only a minority of patients receive them. The primary barriers are low referral rates from oncologists and limited patient awareness. Addressing these issues requires institutional investment in staff, enhancements to electronic health record systems, better patient education materials, and clearer referral protocols. Research is needed to evaluate the impact of these initiatives.

Many findings align with qualitative studies of U.S. survivorship programs, such as those by Manne and Nekhlyudov, which also reported variations in services and clinical models. While some programs leverage electronic health records for communication, enhanced modules for treatment summaries are underutilized. Critical resources include sustainable funding, informatics for tracking outcomes, and institutional backing to develop viable business plans.

This study provides quantitative insights using data from nearly 400 CoC-accredited programs, reflecting the diversity of cancer care in the U.S. Future research adopting both quantitative and qualitative methodologies is strongly advised.

- 36. What is the primary goal of this survey study?
 - (A) To assess how effective cancer treatment plans have been in practice
 - (B) To evaluate patient satisfaction with survivorship programs offered
 - (C) To examine the availability of services in cancer care programs nationwide
 - (D) To analyze the financial costs of providing survivorship services overall
- 37. Based on the article, which of the following statements about survivorship programs is **NOT** true?
 - (A) Many hospitals lack trained staff to facilitate these programs.
 - (B) Hsopitals are requested by national health organizations for accreditation.
 - (C) The programs require resources and their benefits are recognized.
 - (D) Many survivors have access to receiving these types of care programs.
- 38. What constitutes a chief obstacle to patient participation in survivorship care?
 - (A) High expenses of treatment and therapy programs frustrating patient interest
 - (B) Lack of understanding and inadequate doctor recommendation to survivorship services
 - (C) Limited availability of treatment summaries after patient discharge from hospitals
 - (D) Neither genetics counseling nor fertility services is widely provided.

- 39. How do adult survivorship clinics compare to survivorship clinics for children?
 - (A) They are more widely available than late-effects clinics for children.
 - (B) They follow the same standardized model used in children's hospitals.
 - (C) They are mostly an integral part of cancer treatment team in hospitals.
 - (D) They require less institutional support and fewer resources than children's clinics.
- 40. According to the passage, which of the following is true about survivorship care programs?
 - (A) Setting up national standards for their assessment is crucial.
 - (B) The ideal care models need not be specialized ones.
 - (C) Most hospitals prioritize recruiting qualified practitioners for the programs.
 - (D) Computerized health records and treatment summaries are widely used.

Passage B

In contemporary global discourse, zero-sum thinking—the belief that gains for one party necessarily result in losses for another—has experienced a concerning resurgence. This perspective, which conceptualizes success as existing within a framework of finite resources and opportunities, merits critical examination.

Zero-sum thinking appears to have evolutionary roots, originating from primitive competition for scarce resources essential to survival. Anthropologist George M. Foster's seminal 1965 research in rural Mexican communities identified "an image of limited good"—a worldview in which desirable elements such as land, wealth, friendship and love, manliness and honor, power and influence, exist in finite quantity and are always in short supply. Contemporary psychological research confirms that perceptions of scarcity and threat serve as fundamental catalysts for zero-sum thinking.

However, as noted in the *Journal of Personality and Social Psychology*, "purely zero-sum situations are exceedingly rare" in actual human experience. The discrepancy between zero-sum perception and reality constitutes what psychologist Daniel V. Meegan identifies as a "zero-sum bias"—a tendency to perceive competitive scenarios where cooperation might prove more beneficial. Despite its proponents often positioning themselves as pragmatic realists, research indicates that zero-sum thinking is fundamentally grounded in fear and insecurity rather than rational assessment.

The historical precedent for zero-sum thinking in international relations can be traced to European mercantilism of the 16th-19th centuries, when wealth was conceptualized primarily through gold, silver, and territorial acquisition. This paradigm produced destructive trade monopolies and protectionist policies that precipitated numerous conflicts. Adam Smith's *Wealth of Nations* (1776) represented a pivotal theoretical challenge to mercantilist assumptions. Smith demonstrated that wealth transcended precious metals to encompass gross domestic product—the totality of economic activity—and could be expanded through productivity improvements, innovation, and comparative advantage in trade.

The post-WWII international order emerged as a deliberate counterpoint to zero-sum geopolitics, establishing institutions like the International Monetary Fund to foster economic interdependence. This system, despite its imperfections, facilitated unprecedented global prosperity, with fourfold economic growth since the 1980s and significant nuclear disarmament achievements.

Recent years have witnessed a troubling reversion to zero-sum thinking across multiple domains. As Hal Brands observes, this represents "a backlash against the positive-sum thinking of the post-Cold War era—the idea that globalization could lift all boats." This resurgence manifests in protectionist trade policies, xenophobic immigration rhetoric, and increasingly confrontational international relations. Some political leaders have displayed pronounced zero-sum tendencies, conceptualizing international relations as fundamentally competitive rather than cooperative. This approach threatens to undermine the foundations of the post-war liberal order and potentially revive destructive great power rivalries.

Zero-sum thinking extends beyond geopolitics into domestic social dynamics. Psychologist J. Clifton suggests that contemporary zero-sum thinking may stem from anxieties about meaning and significance rather than material scarcity. Many individuals perceive that the recognition of another group's importance necessarily diminishes their own—a mechanism that exacerbates social polarization.

Research indicates that deliberate intervention can mitigate zero-sum thinking. Michael Smithson notes that individuals faced with zero-sum scenarios often respond by "minimizing investment and holding back resources"—effectively boycotting the zero-sum framework. This creates opportunities for collaborative actors to establish alternative paradigms.

Educational interventions can prove effective. Smithson reports success in encouraging students collaboration by positioning themselves as a common challenge, thereby reframing competition as cooperation. Similarly, Daniel Kahneman's work demonstrates that reflective slow thinking can overcome instinctive zero-sum assumptions.

The challenge for contemporary societies involves cultivating awareness of zero-sum biases and developing institutional frameworks that incentivize cooperation. Economic policies addressing inequality may prove particularly important, as research consistently demonstrates correlations between resource disparity and zero-sum mentalities.

A transition toward positive-sum thinking requires acknowledging the legitimate grievances that fuel zero-sum perspectives while demonstrating that collaborative approaches ultimately generate superior outcomes for all participants. By recognizing our shared interests in addressing transnational challenges like climate change, pandemic response, and technological regulation, we may transcend the limitations of zero-sum thinking and construct more productive paradigms for global cooperation.

- 41. According to the passage, which of the following is accurate about zero-sum thinking?
 - (A) It is a belief that resources are infinite and can be shared equally.
 - (B) It is a conviction that winners gain at the expense of losers.
 - (C) It refers to a psychological condition that affects mostly political leaders.
 - (D) It denotes a modern concept that emerged shortly after World War II.
- 42. Which of the following is cited as an irrational manifestation of zero-sum thinking?
 - (A) Perception of competition, shortage and menace leading to dread and uncertainty
 - (B) Accumulation of wealth through conducting a variety of economic activities
 - (C) The International Monetary Fund nurturing interconnectedness among nations
 - (D) Mercantilist hypotheses facilitating European trade and economic strategies
- 43. According to the passage, which of the following statements is true?
 - (A) Gold, silver, and territorial acquisition are the only true measures of wealth.
 - (B) Wealth accumulation can be expedited through increased productivity and innovation.
 - (C) Globalization and positive-sum thinking are detrimental to national power.
 - (D) International protectionist policies are essential to national prosperity.
- 44. According to the passage, which is **NOT** a measure that alleviates zero-sum thinking?
 - (A) Set up policies easing economic disadvantages in societies
 - (B) Promote positive-sum thinking that encourages global teamwork
 - (C) Utilize cooperative learning strategy in the competitive educational setting
 - (D) Replicate European mercantilism paradigm to achieve global peace
- 45. According to the passage, which of the following statements is false?
 - (A) Zero-sum thinking in geopolitics tends to destabilize the world order.
 - (B) Zero-sum bias would lead people to embrace cooperation rather than competition.
 - (C) Zero-sum mindset can be mitigated through slow thinking strategy.
 - (D) Zero-sum thinking may originate from emotional anxieties about one's worth.

Passage C

This umbrella review critically evaluates top-tier evidence on nutrient supplements for female infertility. Overall, the evidence remains highly uncertain regarding the effects of multiple micronutrients and antioxidants on live birth rates. L-arginine, CoQ10, melatonin, vitamin B complex, vitamin D, and vitamin E did not significantly improve live birth rates. Clinical pregnancy rates may benefit from L-carnitine, CoQ10, melatonin, myo-inositol, NAC, and vitamin D, but the evidence remains weak. Biochemical pregnancy rates were not increased with vitamin D, and adverse effects were poorly reported. Limited and low-quality studies necessitate cautious interpretation of these findings.

For live birth rates, multiple micronutrients showed very low certainty evidence of benefits. Variability in formulations across three randomized controlled trials (RCTs) made general

recommendations difficult. Similarly, pooled antioxidants—diverse compounds reducing oxidative stress—showed very low certainty evidence for improving live birth rates. A literature review suggests micronutrient supplementation may help restore nutrient levels and reduce oxidative stress, but more high-quality RCTs are needed to confirm efficacy.

For clinical pregnancy rates, L-carnitine, myo-inositol, and NAC showed potential benefits, particularly in women with PCOS. These nutrients support metabolism, reproductive health, and oxidative stress reduction. However, findings stem from limited studies (two RCTs per nutrient, with 177-450 participants), highlighting the need for further research to clarify their effectiveness in female infertility treatment.

Among women undergoing medically assisted reproduction (MAR), CoQ10 may improve clinical pregnancy rates based on four RCTs (n = 397), though the evidence remains uncertain. As a mitochondrial antioxidant, CoQ10 may help reverse ovarian dysfunction, support ovulation, and enhance embryo development. Preclinical and clinical data suggest CoQ10 is well tolerated at doses up to 1200 mg/day, but large-scale studies are necessary to confirm efficacy.

Melatonin and vitamin D may also improve clinical pregnancy rates in MAR patients, though evidence is inconsistent. Melatonin, a hormone with antioxidant and anti-inflammatory effects, may slow ovarian aging and enhance oocyte quality. However, due to methodological limitations and inconsistencies in trials, further research is required, especially on higher doses and longer treatments. Vitamin D, known for its role in bone health, also influences reproductive function through hormone regulation and endometrial receptivity. Four studies using calcitriol, the most active vitamin D form, suggested potential benefits, but more research is needed to explore the relationship between vitamin D and fertility.

Currently, no specific nutrient supplements can be confidently recommended for improving fertility outcomes. However, many of these interventions pose minimal risks and may help correct deficiencies and boost antioxidant levels. While adverse event reporting was limited, CoQ10, melatonin, NAC, vitamin D, L-carnitine, and inositol appear safe and well tolerated. Future studies must focus on robust reporting of side effects and long-term safety to guide clinical recommendations.

- 46. Which of the following statements best describes the impact of nutrient supplementation on live birth rates in women with infertility?
 - (A) Antioxidants can continually improve live birth rates across all randomized controlled trials.
 - (B) Calcitriol, a vitamin D form, has proven effects in significantly increasing the chances of live birth.
 - (C) The evidence for the benefit of multiple micronutrients and antioxidants is uplifting but remains dubious.
 - (D)L-arginine has been proven to be the most effective supplement for improving live birth rates.

- 47. Why is it a challenge to provide general recommendations on the prescription of multiple micronutrients?
 - (A) Most studies employed identical formulations and dosages; therefore recommendations are redundant.
 - (B) The ingredients and dosages in the randomized controlled trials are too varied to warrant efficacy.
 - (C) The effect of antioxidant properties in the supplements is proven adverse to warrant intervention.
 - (D) Statistically significant results on reproductive outcomes are consistently presented.
- 48. According to the review article, which of the following is **NOT** true?
 - (A) The review included only studies on women who have been undergoing medically assisted reproduction (MAR).
 - (B) The review provides inconclusive evidence that all nutrient supplements improve live birth rates.
 - (C) There was a lack of high-quality randomized controlled trials, leading to weak and uncertain evidence.
 - (D) While vitamin D may regulate hormone and contribute to endometrial receptivity, its effect on fertility is unclear.
- 49. Based on the review, how should clinicians approach the use of nutrient supplements for infertility?
 - (A) Prescribe high doses of CoQ10, melatonin, and NAC to all infertile women.
 - (B) Strongly advise against supplement use due to potential health hazards.
 - (C) Promote vitamin B complex and L-arginine as the most effective fertility boosters.
 - (D) Recommend supplements when there is a nutritional deficiency.
- 50. What methodological issue complicates the interpretation of findings in this study?
 - (A) The trials exclusively studied women without infertility issues, making it impossible to generalize.
 - (B) Antioxidant studies were conducted primarily in animal models rather than humans, disrupting the validity of the study.
 - (C) The studies used different combinations and doses of antioxidants, making comparisons unlikely.
 - (D) Effects of antioxidants on RCTs were systematically overstated, creating bias for the medical community.