國立中山大學 112 學年度
碩士班暨碩士在職專班招生考試試題

科目名稱：科技英文【精準所碩士班、生藥所碩士班、生醫所碩士班、醫科所碩士班甲組、乙組、生醫科學與工程領域聯合碩士班】

－作答注意事項－

考試時間：100 分鐘

● **考試開始鈴響前不得翻閱試題，並不得書寫、劃記、作答。請先檢查答案卷（卡）之應考證號碼、桌角號碼、應試科目是否正確，如有不同立即請監試人員處理。**

● **答案卷限用藍、黑色筆(含鉛筆)書寫、繪圖或標示**，可攜帶橡皮擦、無色透明無文字墊板、尺規、修正液（帶）、手錶(未附計算器者)。每人每節限使用一份答案卷，請衡酌作答(不得另攜帶紙張，亦不得使用應考證空白處作為計算紙使用)。

● 答案卡請以 2B 鉛筆劃記，不可使用修正液（帶）塗改，未使用 2B 鉛筆、劃記太輕或污損致光學閱讀機無法辨識答案者，後果由考生自負。

● 答案卷（卡）應保持清潔完整，不得折疊、破壞或塗改應考證號碼及條碼，亦不得書寫考生姓名、應考證號碼或與答案無關之任何文字或符號。

● 可否使用計算機請依試題資訊內標註為準，如「可以」使用，廠牌、功能不拘，唯不得攜帶具有通訊、記憶或收發等功能或其他有礙試場安寧、考試公平之各類器材、物品（如鬧鈴、行動電話、電子字典等）入場。

● 試題及答案卷（卡）請務必繳回，未繳回者該科成績以零分計算。

● 試題採雙面列印，考生應注意試題頁數確實作答。

● 違規者依本校招生考試試場規則及違規處理辦法處理。

每題 2.5 分，共 40 題，單選，答錯不倒扣。

1. The main pharmacologic action of analgesics is to _____.
    (A) kill pain
    (B) stop bleeding
    (C) induce sleep
    (D) neutralize acid

2. What does the abbreviation "AED" stand for in the field of emergency medicine?
    (A) Automated Electrical Defibrillator
    (B) Automated External Defibrillator
    (C) Automated Extracorporeal Defibrillator
    (D) Automated Electronic Defibrillator

3. "Hypoglycemia" is a condition when which of the following substances is too low in blood?
    (A) Glucose
    (B) Oxygen
    (C) Albumin
    (D) Water

4. "She is hypothermic." In other words, her body temperature is _____.
    (A) normal
    (B) too high
    (C) too low
    (D) uncertain

5. "Insomnia" is a disorder of which physiological function?
    (A) Eating
    (B) Sleep
    (C) Speech
    (D) Growth

6. When we are performing first aid, what does the abbreviation "CPR" stand for?
    (A) Collaborative Peer Review
    (B) Cellular Power Reserve
    (C) Cardio-Pulmonary Resuscitation
    (D) Core Professional Requirements

7. The main pharmacologic action of hypnotics is to _____.
    (A) kill pain
    (B) stop bleeding
    (C) induce sleep
    (D) neutralize acid

8. "Dehydration" is a status when the body experiences which of the following conditions?
    (A) Lack of sugar
    (B) Lack of protein
    (C) Lack of lipid
    (D) Lack of water

9. "Hypoxemia" is a condition when which of the following substances is too low in blood?
   (A) Glucose
   (B) Oxygen
   (C) Albumin
   (D) Water

10. "He is taking anti-hypertensive medications." In other words, his blood pressure before receiving any treatment is _____.
    (A) normal
    (B) higher than normal
    (C) lower than normal
    (D) uncertain

11. What is the true inducer that binds to the lac repressor?
    (A) Lactose
    (B) Allolactose
    (C) Galactose
    (D) Glucose

12. If nucleic acid is lost or damaged, what kind of repairs is most likely to cause mutation?
    (A) Nonhomologous end joining
    (B) Base excision repair
    (C) DNA repair with photolyase
    (D) Mismatch repair

13. Which one of the following enzymes is involved in DNA manipulation but does not alter genetic information?
    (A) Recombinase
    (B) Integrase
    (C) Transposase
    (D) Topoisomerase

14. What kind of protein unwinds the double-stranded DNA ahead of the replication fork?
    (A) Helicase
    (B) Single-stranded binding protein
    (C) Gyrase
    (D) Clamp loading complex

15. Which one is not cytoskeleton protein?
    (A) Actin
    (B) Collagen
    (C) Keratin
    (D) Microtubule

16. What is not the major role of nucleic acid in information transfer?
    (A) Transcription
    (B) Replication
    (C) Metabolism
    (D) Translation

17. Where does protein glycosylation take place?
(A) Cytoplasm
(B) Nucleus
(C) Mitochondria
(D) Golgi apparatus

18. Which one of the followings is carbohydrate?
(A) $C_6H_{12}O_6$
(B) $C_4H_8O_6$
(C) $C_5H_{12}O_5$
(D) $C_6H_{10}O_6$

19. In DNA synthesis, the _____ strand is synthesized in a _____ fashion.
(A) template; discontinuous
(B) template; continuous
(C) lagging; discontinuous
(D) leading; discontinuous

20. Which of the following is the best description for primase?
(A) a DNA-dependent DNA polymerase
(B) an RNA-dependent DNA polymerase
(C) an RNA-dependent RNA polymerase
(D) a DNA-dependent RNA polymerase

21. The novel algorithms in bioinformatics tool were intelligently designed, expertly executed, and interpreted _____ to find out the real world data.
(A) abruptly
(B) utterly
(C) imminently
(D) cautiously

22. _____ in Integrated Circuit (IC) design have made all sectors of the Taiwan economy, from civil Engineering to medicine.
(A) Deteriorations
(B) Innovations
(C) Recessions
(D) Territory

23. There are innumerable _____ of Natural Language Generation that are directly attributed to both generative AI and its advanced machine learning methods.
(A) employments
(B) acceptance
(C) adherence
(D) deployments

24. The medical centers rapidly adopted _____ Internet of Things (IoT) solutions by establishing the Internet of Medical Things (IoMT).
    (A) tiresome
    (B) a variety of
    (C) tedious
    (D) monotony

25. Twitter's search outcomes _____ concentrate on webpages, but it also indexes publicly available files.
    (A) predominantly
    (B) occasionally
    (C) approximately
    (D) critically

26. Even though the significance of no-code platforms is on the rise, coding skill _____ is still quite important.
    (A) partially
    (B) conditionally
    (C) automatically
    (D) manually

27. The software is very useful; _____ powerful and efficient.
    (A) likewise
    (B) but
    (C) being
    (D) it is

28. Most of people said that the first Industrial Revolution _____ out in 1760.
    (A) breaks
    (B) break
    (C) had broken
    (D) broke

29. Over the past 5 years, the Arctic Oscillation _____ a huge influence across the world.
    (A) exerts
    (B) exerted
    (C) has exerted
    (D) was exerted

30. As for _____ education programs, it is another way that the company invests in their employees in order to enhance their working skills and knowledges.
    (A) continues
    (B) continuing
    (C) continue
    (D) continued

31. Carbon footprints are the result of _____ calculations, including carbon dioxide and methane. It gives a breakdown of amount of greenhouse gases are released by an activity, a process, or a service.
    (A) emission
    (B) injection
    (C) duration
    (D) absorption

32. In 2021, PAXLOVID has not been approved, but has been authorized for _____ use by the U.S. Food and Drug Administration (FDA), for the treatment of mild-to-moderate COVID-19 in adults and pediatric patients.
    (A) prevention
    (B) fortune
    (C) emergency
    (D) encouragement

33. Stem cell therapy is a therapeutic approach that _____ the unique properties of stem cells to regenerate damaged cells and tissues in the human body.
    (A) reduces
    (B) utilizes
    (C) eliminates
    (D) mitigates

34. T cells with modified receptors that _____ tumor antigens (chimeric antigen receptor or CAR T cells) have proved effective in treating B cell malignancies.
    (A) recognize
    (B) reject
    (C) run
    (D) review

35. Scientists operate within a system designed for _____ testing, where corrections and new findings are announced in refereed scientific publications.
    (A) broken
    (B) inconstant
    (C) occasional
    (D) continuous

36. The annual concentration of particulate matter (PM2.5) steadily _____ from 38.20 $\mu g/m^3$ in 2010 to 25.10 $\mu g/m^3$ in 2015 in Kaohsiung City.
    (A) surged
    (B) enhanced
    (C) decreased
    (D) climbed

37. The primary purpose of a Phase 1 study is to _____ the safety of a new drug candidate before it proceeds to further clinical studies.
    (A) ignore
    (B) evaluate
    (C) terminate
    (D) veto

38. Drug addiction is a disease that affects a person's brain and behavior and leads to an ____ to control the use of a legal or illegal drug.
     (A) inability
     (B) success
     (C) gift
     (D) skill

39. Following a master's degree requires students to be more ____ than during a bachelor's degree.
     (A) independent
     (B) toxic
     (C) rich
     (D) dependent

40. Immunotherapy is a *cancer treatment* that uses your body's immune system to find and ____ cancer cells.
     (A) grow
     (B) raise
     (C) destroy
     (D) build