

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

一、綜合測驗(50 分，單選題，每題 2 分。)

Multiple choice: Write down the question numbers in series on the answer sheet, followed by one best answer of your choice to each question (50%, 2% for each question).

1. The 2018 Nobel Prize in Medicine _____ jointly to James Allison and Tasuku Honjo for their discovery of cancer therapy by immune regulation.
(A) was awarding
(B) was awarded
(C) awarding
(D) awarded
2. _____ usually regarded as being both an art and a science.
(A) It is Anatomy
(B) Anatomy is
(C) Anatomy, which is
(D) Although Anatomy is
3. Platinum _____ in existence.
(A) it is one of the heaviest materials
(B) as one of the heaviest materials that is
(C) one of the heaviest materials it is
(D) is one of the heaviest materials
4. _____ in leaves but also in egg yolk, in which it is the principal yellow coloring matter.
(A) Not only lutein occurs
(B) Lutein, occurring not only
(C) Lutein, which not only occurs
(D) Lutein occurs not only
5. Birds are classified according to their appearance, their skeletal structure, _____ .
(A) but the shape of their feet and beaks
(B) and the shape of their feet and beaks
(C) with their shape of feet and beaks
(D) by shaping their feet and beaks
6. The patient wanted to leave the hospital even _____.
(A) she was hardly able to walking
(B) though hardly able to walk
(C) she hardly able to walk
(D) though she was hardly able to walk
7. The universe _____ we know it might have begun with a great explosion.
(A) as
(B) but
(C) which
(D) and

8. _____ charcoal and sulphur, potassium nitrate forms an explosive mixture.
 (A) The combination of
 (B) When combined with
 (C) Combining
 (D) To combine
9. Detergents vary in composition, depending on the cleaning task _____ intended.
 (A) which they
 (B) for which they are
 (C) they
 (D) which are they
10. There are eight species of the genus *Canis*, _____ .
 (A) all are wild, excepting only one
 (B) of all only one is wild
 (C) all but one of which is wild
 (D) all except only one of which are wild
11. The midget, ___ characterized by shorter limbs, is created by a genetically defective pituitary gland.
 (A) that
 (B) which is
 (C) because
 (D) since
12. _____, she would have come to the laboratory.
 (A) If Mary is able to finish her homework
 (B) Would Mary be able to finish her homework
 (C) If Mary could finish her homework
 (D) If Mary had been able to finish her homework
13. The size of our library is twenty times _____ your classroom.
 (A) more of
 (B) that of
 (C) than of
 (D) than
14. There are now _____ methods for studying color vision in infants than there once were.
 (A) many sophisticated
 (B) much more sophisticated
 (C) much sophisticated
 (D) sophisticated
15. _____, photosynthesis is the ultimate source of food for almost all organisms on earth.
 (A) Because an extremely important process
 (B) Be an extremely important process
 (C) That an extremely important process as
 (D) An extremely important process

16. The student is looking forward to _____ next week.
(A) going to the meeting
(B) go to the meeting
(C) go meeting
(D) meet
17. Professor Wang heard _____ about him.
(A) the young scientists to talk
(B) the talk by the young scientists
(C) the young scientists talking
(D) the young scientists talk
18. No matter how _____, it is not necessarily worthless.
(A) dry a desert may be
(B) a desert may be dry
(C) may a desert be dry
(D) a desert dry may be
19. A sneeze cannot be performed voluntarily, _____ be easily suppressed.
(A) nor can it
(B) nor it can
(C) neither it can
(D) neither can
20. Although _____ new energy sources will be developed, we must reduce our consumption of fossil fuels.
(A) there are likely
(B) there is the likelihood of
(C) it is likely that
(D) it is a likelihood that
21. _____ in Tainan in the winter.
(A) There is usually warm
(B) It usually be warm
(C) It is usually warm
(D) Though it is usually warm
22. _____ other big cats, leopards are expert climbers.
(A) They unlike most
(B) They are unlike most
(C) Unlike the most
(D) Unlike most
23. _____ undergraduate programs, National Cheng Kung University also offers graduate and professional courses.
(A) Unless
(B) Except
(C) Besides
(D) Despite

24. Dr. Lee is thinking _____ a very expensive microscope.

- (A) to buy
- (B) of buying
- (C) to be buying
- (D) that to buy

25. The spinning of the earth is _____.

- (A) faster at the equators than as fast as the poles
- (B) faster at the equator than at the poles
- (C) faster at the equator than the poles
- (D) fastest at the equator than at the poles

二、閱讀測驗 (10 分，單選題，每題 2 分。)

Reading comprehension: Read the article below and then answer the following questions. Remember, write down the question numbers in series on the answer sheet, followed by one best answer of your choice to each question (10%, 2% for each question).

In the near future, cancer could be diagnosed as simply as determining your drink-drive status. Researchers in the UK are about to start trialing a breathalyzer-like device which will be able to diagnose the cancer from simple chemical changes to your breath.

This particular method involves chemicals called volatile organic compounds (VOCs), which can be produced by the body's cells' metabolism. Various health conditions, including cancer, can change the cell's metabolism, resulting in a different pattern of VOCs. This can be used as a smoking gun to alert doctors to the presence of cancer. "Intuitively, lung cancer seems the most obvious cancer to be detected in the breath," a research explained. "But because of the way metabolites are recycled in the body, many other volatile molecules from other areas of the body end up in the breath too." The trial is a pilot study to compare the breath of those who are later diagnosed with cancer to those that are not to see if there are special clues for the doctors.

The hope is that the trial will result in a fixed breath signature that can be used to determine whether or not there is cancer in the body. But in the very best case scenario, there will be multiple signatures that can actually reveal exactly what type of cancer it is. If the results of this trial are positive, this can be a screening tool used to detect cancer in the earliest stages – before a patient notices symptoms even.

1. The phrase "smoking gun" in the line 3 of the 2nd paragraph is closest in meaning to

- (A) Fire
- (B) Weapon
- (C) Evidence
- (D) Cigarette

2. The word "pilot" in the line 6 of the 2nd paragraph is closest in meaning to

- (A) Pioneer
- (B) Captain
- (C) Officer
- (D) Driver

3. The word "signature" in the line 1 of the 3rd paragraph is closest in meaning to

- (A) Name
- (B) Characteristic
- (C) Song
- (D) Autograph

4. Which of the following statements is TRUE?

- (A) The device has become a formal tool for cancer diagnosis.
- (B) This device is designed for detecting lung cancer only.
- (C) This device is not suitable for people of low cancer risk.
- (D) The idea of this device is similar to the breath analyzer for drivers under the influence of alcohol.

5. Which of the following statements is TRUE?

- (A) The trial study does not include healthy people to avoid errors.
- (B) VOC detection only reveals the existence of a cancer, but not the types of the cancer.
- (C) In addition to lung cancer, VOCs change with the health conditions of other organs.
- (D) The test results will be shown on the tool's screen.

三、字彙中翻英 (10 分，每題 1 分。)

Translation: Translate the following terms into English (10%, 1% for each question). Write the question numbers in series and your answers on the answer sheet.

1. 核仁
2. 內質網
3. 骨骼
4. 胰臟
5. 血小板
6. 中風
7. 氫氧化鈉
8. 濃度
9. 離心機
10. 漏斗

四、字彙英翻中 (10 分，每題 1 分。)

Translation: Translate the following terms into Chinese (10%, 1% for each question). Write the question numbers in series and your answers on the answer sheet.

1. Synapse
2. Ribosome
3. Flask
4. Buffer
5. Embryo
6. Humidity
7. Statistics
8. Degeneration
9. Stomach
10. Mitosis

五、文句中翻英 (10 分，每題 2 分)

Translation: Translate the following sentences into English (10%, 2% for each question). Write the question numbers in series and your answers on the answer sheet.

1. 腦與脊髓構成人體的中樞神經系統。
2. 營養缺乏往往導致體重快速下滑。
3. 白老鼠比黑老鼠重 10 公克。
4. 實驗組與對照組互相比較沒有顯著差異。
5. 研究顯示空氣污染與肺部疾病息息相關。

六、文句英翻中 (10 分，每題 2 分)

Translation: Translate the following sentences into Chinese (10%, 2% for each question). Write the question numbers in series and your answers on the answer sheet.

1. David donated his whole body after death for medical research and education.
2. The average global temperature has warmed by more than 0.7°C over the past century.
3. The new results are consistent with previous findings from other investigators.
4. Cardiopulmonary resuscitation (CPR) is a lifesaving procedure that combines chest compressions and artificial ventilation.
5. African swine fever, caused by a deadly and contagious virus in pigs, has been spreading rapidly in China.