

105 學年度 國立成功大學與臺南一中高中科學班 科學能力檢定

語文能力檢定

請不要翻到次頁！

讀完本頁的說明，聽從監試委員的指示才開始作答！

請閱讀以下測驗作答說明：

測驗說明：

1. 本試卷包含國文、英文二部分，共計 7 頁，總分 100%。
2. 測驗時間從 13:40 到 15:00 共 80 分鐘。
3. 請依說明於答案卡(1 張)及答案卷(國文、英文各 1 張)上作答。

第一部分：選擇題，答案請畫在答案卡

一、【英文科】單字測驗：10%

Direction: Choose the most appropriate meaning of the underlined English word.

- | | | | | |
|---------------------------------------|-------|---------|---------|--------|
| 1. I <u>saw</u> it. | A. 緊閉 | B. 等待 | C. 看見 | D. 開始 |
| 2. Please use the <u>microphone</u> . | A. 電話 | B. 微波爐 | C. 顯微鏡 | D. 麥克風 |
| 3. He is a <u>soldier</u> . | A. 商人 | B. 士兵 | C. 鐵匠 | D. 售貨員 |
| 4. Make a <u>circle</u> . | A. 素描 | B. 空白 | C. 圓圈 | D. 洞 |
| 5. Our dog often <u>digs</u> . | A. 尿尿 | B. 挖洞 | C. 睡覺 | D. 吠 |
| 6. It has been <u>restored</u> . | A. 複誦 | B. 重新分配 | C. 復原 | D. 特價 |
| 7. He <u>strangled</u> her. | A. 掐死 | B. 綁架 | C. 擔憂 | D. 讚美 |
| 8. The boy <u>shuddered</u> . | A. 發抖 | B. 大呼小叫 | C. 喃喃自語 | D. 跌倒 |
| 9. He was holding a <u>jug</u> . | A. 罐子 | B. 杯子 | C. 毛帽 | D. 槍 |
| 10. <u>Press</u> the button. | A. 揉 | B. 打 | C. 搭 | D. 按 |

二、【英文科】篇章結構：10%

Direction: Choose the best answer to make the passage complete and coherent.

There is an international debate __11__. One issue that is currently being debated concerns genetically modified foods (基因改造食物). One of the issues concerning genetically modified foods is __12__. However, developing countries have the highest rate of starvation. Companies in rich countries are patenting (有專利) these technologies. This means that the poorer nations will either have to buy its food from the rich countries or buy the patents to __13__. Both of these options are too expensive for many poor countries.

Since many poor countries will be unable to afford (負擔得起) these foods and technologies, __14__. However, the companies that have developed these technologies argue __15__. The promise that genetically modified crops can help to address the world's rate of starvation (飢餓) becomes questionable, especially as the population of the world increases.

- A. that they have a right to the ownership of such methods and products
- B. that the technologies that produce such foods are owned and used by rich nations
- C. the genetic technologies from the corporations in order to feed their own people
- D. concerning how to increase the production of food in order to feed people throughout the world who are starving
- E. the rate of starvation throughout the world will not decrease, but it will increase

三. 【英文科】閱讀測驗：22%

Read the passages and choose the most appropriate answer to each question.

Do our teeth become cleaner and cleaner the longer and harder we brush them?

British researchers say no. They have actually tried out many different alternatives, and ended up with the perfect way to brush your teeth. A two minute brush, without brushing too hard, gives the best result. If you brush hard, you harm your tooth enamel and your gums without loosening food remnants or plaque.

Bente Hansen, an expert on tooth brushing, says that it is a good idea to hold the toothbrush the way you hold a pen. "Start in one corner and brush your way along the whole row," she says. "Don't forget your tongue either! It can actually contain loads of bacteria that may cause bad breath."

16. What is this article about?

- A. The best way to brush your teeth.
- B. The best kind of toothbrush to use.
- C. The importance of good teeth.
- D. The way different people brush their teeth.

17. What do the British researchers recommend?

- A. That you brush your teeth as often as possible.
- B. That you do not try to brush your tongue.
- C. That you do not brush your teeth too hard.
- D. That you brush your tongue more often than your teeth.

18. Why is a pen mentioned in the text?

- A To show that you can brush your teeth in many different ways.
- B Because you start in one corner with both a pen and a toothbrush.
- C To help you understand how to hold a toothbrush.
- D Because you should take tooth brushing as seriously as writing.

Without any doubt, if there had been elections (選舉) for the animal of the year 1997, Dolly would have been the winner! Dolly is a Scottish sheep. But Dolly is not just a simple sheep. She is a clone of another sheep. A clone means: a copy. Cloning means copying 'from a single master copy'. Scientists succeeded in creating a sheep (Dolly) that is identical (一樣) to a sheep that functioned as a 'master copy'.

It was the Scottish scientist Ian Wilmut who designed the 'copying machine' for sheep. He took a very small piece from the udder (乳房) of an adult sheep (sheep 1). From that **a very small piece** he removed the nucleus (細胞核), then he transferred the nucleus into the egg-cell of another (female) sheep (sheep 2). But first he removed from that egg-cell all the material that would have determined sheep 2 characteristics (特徵) in a lamb produced from that egg-cell. Ian Wilmut implanted (移植) the manipulated egg cell of sheep 2 into yet another (female) sheep

(sheep 3). Sheep 3 became pregnant and had a lamb: Dolly.

Some scientists think that within a few years it will be possible to clone people as well. But many governments have already decided to forbid cloning of people by law.

19. Which sheep is Dolly identical to?

- A. Sheep 1 B. Sheep 2 C. Sheep 3 D. Dolly's father

20. In the second paragraph, what does "a very small piece" mean?

- A. a cell. B. a gene. C. a cell nucleus. D. a chromosome.

21. In the last sentence of the article it is stated that many governments have already decided to forbid cloning of people by law. What is a scientific reason for this decision?

- A. Cloned people could be more sensitive to certain diseases than normal people.
B. People should not take over the role of a Creator.
C. Cloning of people can only be done by their parents.
D. None of the above.

For the whole of human history, people have been searching for the secret of becoming immortal. European alchemists (鍊金術師) spent centuries searching for the "Philosopher's Stone", a magical substance (物質) that could turn iron into gold and give humans the power to live forever. Juan Ponce de Leon, the first European to travel to Florida, was there because he was searching for the mythical (神祕的) "Fountain of Youth". A drink from this spring was rumored (謠傳) to keep a person permanently young. Currently, researchers are still looking for ways to help us live forever, only now they are using science instead of magic.

The main causes of death are disease, simple aging and of course accidents. So, in order to allow people to live longer, each of these areas has to be considered. Of the three, disease is probably the easiest to deal with. Over the past twenty years, medical skill and treatment of disease have improved enormously. As a result, people in countries with good healthcare systems are already living much longer than they did in the past.

The second area to consider is aging. This can now also be dealt with through new technological approaches. Genetic engineering can deal with birth defects (缺陷) and produce stronger, healthier people. And, it is hoped that in the near future, nanotechnology-the technology of creating tiny, tiny devices-will provide methods of keeping the body from aging by enabling it to "service" itself. One of the possibilities for nanotechnology is that it would enable us to have millions of tiny robots "swimming" around in our blood that would kill dangerous cells and repair broken ones automatically.

The third most common cause of death is accidents, and they are of course the most difficult to deal with. If you get hit by a bus or shot in the head, then you will probably be dead and that is the end of the story. However, in less serious cases, even here nanotechnology offers some hope. Scientists have discussed the possibility of using nanotech to alter (改變) the structure of human bones, making them many times stronger than now. This would mean that even if you were in a car accident or you fell from a building, your bones wouldn't break and you could walk away unharmed.

22. The word "immortal" in the first paragraph probably means _____.
- A. dying B. magical C. living forever D. permanently young
23. Which of the following is not mentioned by the author as a main cause of death?
- A. Illness. B. Aging. C. Accidents. D. Suicide.
24. The purpose of this article is _____.
- A. to persuade readers to become immortal
B. to tell readers about ways to live longer
C. to compare three ways of dying
D. to offer thanks to Juan Ponce de Leon
25. Which of the following is **NOT** true about nanotechnology?
- A. It creates very, very small things.
B. It can swim around in our blood.
C. It may make human bones stronger.
D. It may help humans to stay young.
26. Why does the author mention the Philosopher's Stone at the beginning of the article?
- A. It is the main idea of the passage.
B. Because it can turn iron into gold.
C. Because it serves as an example.
D. It makes a funny introduction.

四. 【國文科】基本能力測驗：第 27-32 題，共 6 題，每題 3 分，18%

27. 下列「 」內的字，讀音皆不同的選項是：

- (A) 「塑」化劑／追本「溯」源／撲「朔」迷離
(B) 「瞿」然／清「癯」／精神「矍」爍
(C) 「躡」手躡腳／「躡」嚅／震「懾」
(D) 「闇」於自見／萬馬齊「瘖」／「黯」然失色

28. 下列「 」內的成語使用正確的是：

- (A) 王先生品德高尚，雖沉默少言，但已是「桃李不言，下自成蹊」，深受愛戴
(B) 新推出的筆記型電腦功能多、造型時尚、體積輕巧，「八面玲瓏」攜帶方便
(C) 一談起線上虛擬遊戲，小學生竟然能說得頭頭是道，「左右逢源」，令人稱奇
(D) 公司目前的狀況可謂「日就月將」，不得不減薪裁員，希望大家能共體時艱

29-30 為題組。請閱讀框線內張曉風〈詠物篇·柳〉後，回答 29-30 題。

所有的樹都是用「點」畫成的，只有柳，是用「線」畫成的。

別的樹總有花、或者果實，只有柳，茫然地散出些沒有用處的白絮。

別的樹是密碼緊排的電文，只有柳，是疏落的結繩記事。

別的樹適於插花或裝飾，只有柳，適於霸陵的折柳送別。

柳差不多已經落伍了，柳差不多已經老朽了，柳什麼實用價值都沒有——除了美。柳樹不是匠人的樹，這是詩人的樹，情人的樹。柳是愈來愈少了，我每次看到一棵柳都會神經緊張的屏息凝視——我怕我有一天會忘記柳。我怕我有一天讀到白居易的「何處未春先有思，柳條無力魏王堤」，或是韋莊的「晴煙漠漠柳毵毵」竟必須去翻字典。

柳樹從來不能造成森林，它註定是堤岸上的植物，而有些事，翻字典也是沒用的，怎麼的注釋才使我們瞭解蘇堤的柳，在江南的二月天□□著春風，隋堤的柳怎樣茂美如堆煙砌玉的重重簾幕。

柳絲條子慣於伸入水中，去□□水中安靜的雲影和月光。它常常巧妙地□□一枚完整的水月，手法比李白要高妙多了。

春柳的柔條上暗藏著無數叫做「青眼」的葉蕾，那些眼隨興一張，便噴出幾脈綠葉，不幾天，所有穀粒般的青眼都拆開了。有人懷疑彩虹的根腳下有寶石，我卻總懷疑柳樹根下有翡翠——不然，叫柳樹去哪裡吸收那麼多純淨的碧綠呢？

29.張曉風的散文文字精煉優美，請依序選出□□內應填入的詞語：

- (A) 梳理\糾纏\逮著
- (B) 攀爬\打擾\懸著
- (C) 吹拂\梳理\抓著
- (D) 撲打\糾纏\攪著

30.關於上文，敘述正確的選項是：

- (A) 作者認為柳樹沒有實用價值徒留美，因而不勝唏噓之感
- (B) 作者認為翻查字典有助於我們更加客觀的理解柳樹的美
- (C) 作者以柳是「詩人的樹，情人的樹」表達她對柳樹之美的想像與體會
- (D) 文末說「我卻總懷疑柳樹根下有翡翠」，表現作者自慚於缺乏客觀事實的認識

31.下列哪個句子可作為鼓勵考生「持恆不懈」的箴言：

- (A) 蓬生麻中，不扶而直。白沙在涅，與之俱黑
- (B) 不登高山，不知天之高也；不臨深谿，不知地之厚也
- (C) 學而不思則罔，思而不學則殆
- (D) 鍥而舍之，朽木不折；鍥而不舍，金石可鏤

32. 閱讀框線內文字後，選出敘述正確的選項：

張杲卿丞相知潤州日，有婦人夫出外數日不歸，忽有人報菜園井有死人，婦人驚，往視之，號哭曰：「吾夫也。」遂以聞官。公令屬官集鄰里就井驗是其夫與非，眾皆以井深不可辨，請出屍驗之。公曰：「眾者不能辨。婦人獨何以知其為夫？」收付所司鞠問，果奸人殺其夫，婦人與聞其謀。（沈括《夢溪筆談》）

- (A) 「往視之」和「請出屍驗之」，兩個「之」字所指稱的對象不同
- (B) 婦人憑藉丈夫的特徵，一眼認出井中的屍體
- (C) 本文旨在凸顯辦案必須廣集眾人意見的重要
- (D) 婦人的行為可用「天作孽，猶可違；自作孽，不可活。」形容之

第二部分：非選擇題，答案請寫在答案卷

五、【英文科】閱讀與寫作：8%（請將答案用英文寫在英文科答案卷上。）

Direction: Read the Aesop's fable (寓言) and answer the questions in English.

A miser sold all that he had and bought a lump of gold, which he buried in a hole in the ground by the side of an old wall. He went to look at it daily. One of his workmen observed the miser's frequent visits to the spot and decided to watch his movements. The workman soon discovered the secret of the hidden treasure, and digging down, came to the lump of gold, and stole it. The miser, on his next visit, found the hole empty and began to tear his hair and to make loud lamentations. A neighbor, seeing him overcome with grief and learning the cause, said, "Pray do not grieve so; but go and take a stone, and place it in the hole, and fancy that the gold is still lying there. It will do you quite the same service; for when the gold was there, you had it not, as you did not make the slightest use of it."

27. What lesson(s) do you learn from this Aesop's fable? (3%)

28. Do you agree with the neighbor's suggestion and argument? Give you reasons. (5%)

六、改錯：每字 1 分，3%。請寫在國文科答案卷上相對應的格子內。

下列引文節選自印度恐怖攻擊事件的新聞報導，共有三個錯別字，請依例題方式，將錯別字挑出並予以更正。（例題：集思廣義。「義」→「益」）

印度精銳突擊隊 29 日拂曉出擊，擊斃死守在孟買泰姬瑪哈大酒店的最後 3 名恐怖分子，為期 3 天的恐怖血腥殺戮也隨之結束...自 26 日晚間恐怖分子挾持酒店內人負隅頑抗以來，印度安全部隊已包圍這家酒店長達 60 小時...突擊隊 28 日晚間也肅清了附近大酒店內的恐怖分子，識滅最後 2 名武裝暴徒。當局總共自這家酒店救出 143 人，並找到 24 具屍體。...印度媒體報導，恐怖分子為這次「印度的 11 事件」策畫了 6 個月。這次攻擊行動對印度的政治、經濟和地緣政治影響甚鉅。

七、簡答題：2分。請寫在國文科答案卷上相對應的格子內。

◎請閱讀完王昭君的故事，回答下列兩個問題。(每題1分，2%)

漢元帝宮人既多，乃令畫工圖之，欲有呼者，輒披圖招之。其中常者，皆行貨賂。王昭君姿容甚麗，志不苟求，工遂毀為其狀。後匈奴來和，求美女於漢帝，帝以昭君充行。既召，見而惜之，但名字已去，不欲中改，於是遂□。

- 1.原文中哪一句表現出王昭君不願賄賂畫工的節操？(請用原文作答)
- 2.文末□處為事件結果，請用一個詞語表達王昭君事件最後的結果。

八、文章解讀：27分。請寫在國文科答案卷上的作文格內。

◎閱讀框線內的文字後，回答下列兩個問題：

- (一)為什麼作者認為讀不懂的書很重要？(9分)
- (二)承上，你是否認同作者的觀點？請提出你的想法並說明之。(18分)

*注意：請將答案標明(一)(二)書寫，(一)(二)合計文長約250-300字。

日本作家大江健三郎在四國山裡長大。小時候，他在森林裡的楓樹上，為自己蓋了一座樹屋。每天，他都要爬到樹屋上去，在樹屋裡讀書。而且只讀一種書——讀不懂或讀不下去的書。

大江健三郎解釋，他有個彆扭的習慣，覺得如果翻開一本書讀了十頁卻沒有辦法把那本書讀完，會覺得很羞恥。可是，實在有些書讀不下去——像是『托爾斯泰日記』——怎麼辦？就把書帶到樹屋上，在樹屋上就只讀這些難讀的書。

我自己小時候，也有類似的經驗。有一段時期，每天五點半起床，家裡都還靜悄悄的，刷了牙洗了臉，坐到書桌前面讀書。讀那些讀不懂，平常讀不下去的書。反正一直到上學出門前，除了留一點時間吃早餐、裝便當外，就是不顧一切地把眼前的書讀下去。

我記得在那樣的微曦晨光中，讀了赫曼赫塞、讀了維根斯坦、讀了數學家高斯的生平與理論，也讀了沙特和海德格的哲學作品。隨著年歲成長，有些本來讀不懂的書讀懂了，然而，總是會出現更多讀不懂的書，排隊等著運用那個奇怪的閱讀時光。

很多那個時候讀的書，一直到今天我還是不懂。然而不懂卻絕對不等於沒讀。我清楚記得閱讀每一本書過程中，帶來的困惑疑惑。在人生經驗囫圇吞棗的紀錄中，傾向於被用「不懂」兩個字一筆帶過的，其實不是那麼簡單、容易的一回事。有各式各樣不同的「不懂」，也有各式各樣不同程度的「不懂」，還有各式各樣面對「不懂」的態度與策略。

有讓人興味盎然的不懂。有激起人挑戰慾望的不懂。有只能讚嘆崇拜的不懂。有令人頹然挫折的不懂。有像清風般不容深究的不懂。有透露著「等一段時間再試試吧」訊息的不懂。還有直接打進靈魂裡幾乎承受不住的不懂。

每一個不懂，都像是小小閃耀的星光，明白標示著一個不容否認的星球存在。一個神祕但必然有火有光有質量的具體巨大物件。不管中間隔絕了多遠的距離，我們就是不可能、沒有資格假裝那另外的世界形式是假的、是空無的。

透過這些一連串的「不懂」，我感知的宇宙，遠比透過「懂」來得廣大、有趣得多。透過這些千奇百怪的「不懂」，我還認識到不一樣的自己，讓我始終相信——理解自己不懂什麼、為何不懂，跟理解自己懂什麼，同樣重要，甚至，更加重要。(楊照〈讀不懂的書〉)