

英文試題

I. Vocabulary (20%)

- 1、The thick morning fog led to a fifteen-car _____ on the highway during rush hour yesterday.
Ⓐ pile-up Ⓑ hold-up Ⓒ make-up Ⓓ check-up
- 2、Taipei 101 in Taipei has joined the Statue of Liberty in New York and Eiffel Tower in Paris to be a worldwide famous _____.
Ⓐ landmark Ⓑ format Ⓒ symbol Ⓓ trademark
- 3、It took the search and _____ crew three days before they finally found the five missing college students deep into the mountain.
Ⓐ finding Ⓑ rescue Ⓒ saving Ⓓ transfer
- 4、Sarah got lost a few times during her backpacking trip to Thailand and had to ask the local people for _____.
Ⓐ conditions Ⓑ directions Ⓒ functions Ⓓ situations
- 5、Many celebrities, especially the rich and famous, have to fight very hard for the _____ of their lives.
Ⓐ privacy Ⓑ regency Ⓒ celibacy Ⓓ intimacy
- 6、When the two car companies _____ with each other last year, they became the third largest car company in the world.
Ⓐ traded Ⓑ merged Ⓒ bargained Ⓓ complied
- 7、Kevin often gets good deals shopping in the night market because he is very good at _____ prices with store clerks and street vendors.
Ⓐ competing Ⓑ exchanging Ⓒ integrating Ⓓ negotiating
- 8、The teacher often _____ various group activities into her classes to promote cooperation and interaction among her students.
Ⓐ participates Ⓑ accumulates Ⓒ incorporates Ⓓ compensates
- 9、It has been a worldwide movement that governments in many countries are setting stricter copyright law to protect individual's _____ property.
Ⓐ ingenious Ⓑ innovative Ⓒ intellectual Ⓓ inventory

- 10、The city zoo has done a very good job protecting and breeding many _____ species from around the world.
Ⓐ abnormal Ⓑ endangered Ⓒ outdated Ⓓ undercover
- 11、The Taiwanese dialect has kept some _____ forms of the Chinese language.
Ⓐ primitive Ⓑ articulate Ⓒ obstinate Ⓓ nauseous
- 12、_____ cannot both be a noun and a verb.
Ⓐ Measure Ⓑ Preview Ⓒ Strike Ⓓ Reside
- 13、It was said that the ship was _____ in North Korea, and no one was allowed to leave the ship.
Ⓐ contended Ⓑ prevailed Ⓒ detained Ⓓ strained
- 14、Sandy and James are good dancing performers – their steps are perfectly _____.
Ⓐ coordinated Ⓑ elaborated Ⓒ relocated Ⓓ manipulated
- 15、I don't want to watch this film – ____!
Ⓐ I don't mind it Ⓑ I can't stand it Ⓒ I quit like it Ⓓ I'm really into it
- 16、What time does your alarm clock _____ in the morning?
Ⓐ get through Ⓑ go up Ⓒ go off Ⓓ get out
- 17、The suburbs are _____.
Ⓐ in the town center Ⓑ outside the town center
Ⓒ an area with factories Ⓓ an area with lots of shops and offices
- 18、Mary has a _____ family; many of her family members are high-ranking officials in the government.
Ⓐ tactical Ⓑ scholastic Ⓒ prestigious Ⓓ inexhaustible
- 19、We cannot _____ with our hands.
Ⓐ sign Ⓑ mimic Ⓒ save Ⓓ stroll
- 20、As time passes, all natural resources on earth will become _____.
Ⓐ scarce Ⓑ ubiquitous Ⓒ commonplace Ⓓ vulnerable

II. Cloze (20%)

We crunch and chew our way through vast quantities of snacks and confectionaries and relieve our thirst with multicolored, 21 soft drinks, with and without calories, for two basic reasons. The first is simple: the food tastes good, and

we enjoy the sensation of eating it. Second, we associate these foods, often without being aware of it, with the 22 pleasurable experiences 23 in the advertisements used to promote their sale. Current television advertisements demonstrate this point: people turn from grumpiness to euphoria after crunching a corn chip. Others water ski into the sunset with their loved ones while drinking a popular soft drink. People entertain on the patio with friends, cook over campfires without mosquitoes, or go to carnivals with granddad munching away at the latest candy or snack food. The people portrayed in these scenarios are all healthy, vigorous, and good looking. One wonders how popular the food they convince us 24 would be 25 they would crunch or drink way while complaining about low back pain or clogged sinuses.

- 21、 A flavor B flavored C flavoring D is flavored
 22、 A highly B high C height D heighten
 23、 A depict B depicting C depicted D is depicted
 24、 A eating B eat C eaten D to eat
 25、 A if B whether C that D so

The earthquake shook down in San Francisco hundreds of thousands of dollars' worth of walls and chimneys. The conflagration that followed 26 hundreds of millions of dollars' worth of property. 27 no estimating within hundreds of millions the actual damage wrought. Not in history 28 a modern imperial city been so completely destroyed. San Francisco is gone! Nothing remains of it 29 memories and a fringe of dwelling houses on its outskirts. Its industrial section is wiped out. Its social and residential section is wiped out. The factories and warehouses, the great stores and newspaper buildings, the hotels and the palaces of nabobs, are all gone. 30 only the fringe of dwelling houses on the outskirts of what was once San Francisco.

- 26、 A burn up B burning up C burned up D was burned up
 27、 A It is B It was C There has D There is
 28、 A did B does C was D has
 29、 A but B and C so D then
 30、 A Remaining B Remains C Remained D Remain

III. Reading Comprehension (30%)

Food waste is a major problem around the globe—an estimated 1.3 billion tons of food, or about one-third of global production, is lost or wasted each year. In a world

where nearly 1 in 7 people goes to bed hungry, that waste is criminal. In developing nations, much of that food loss actually occurs in the field or on the way to market, thanks to poor farming practices and lack of transportation. But in rich nations like the U.S., most of the waste is due to consumers simply not clearing their plates—about 220 lbs. is wasted by each person at the consumption stage.

One way to avoid food waste—would be simply to prepare smaller meals, even at Thanksgiving. For this coming holiday there are a few tips on how to avoid food waste at the holiday season. First, when you prepare the meal, be realistic about how much food you'll actually need to serve your guests and create a list before you go shopping. Hosts tend to overestimate the food their guests need, so don't be afraid to be a little stingy. Besides, making a shopping list can help to cut down on the risk of impulse buys that will empty your wallet and swell your table. Second, when serving the food, use smaller utensils and smaller plates, and encourage self-serving. Smaller utensils and plates can encourage smaller portions and thus reducing waste. Guest can take second or third servings, but the very act of having two reach for more food could be a discouragement. And let guests chose what they want for themselves can certainly reduce waste since they know their own tastes best. Then after the gathering, store your leftovers safely to keep them tasty for the future. Or you can try to create new meals from those leftovers. Last but not least, if you're giving food as a gift, steer clear of highly perishable items and try to pick foods that you know the recipient will actually enjoy. In other words, skip the fruitcake!

31 、 What is this article mainly about?

- Ⓐ The secrets and tips of being a generous host.
- Ⓑ The importance and approaches of avoiding food waste.
- Ⓒ The reasons and significance of celebrating Thanksgiving.
- Ⓓ The problems and difficulties of food waste in developing countries.

32 、 According to the article, what is the major reason for food waste in rich countries?

- Ⓐ Most women are on diet to lose weight.
- Ⓑ The food is rotten on the way to the markets.
- Ⓒ Many people do not eat up the food in their plates.
- Ⓓ Their people do not eat dinner but go to bed hungry.

33、According to the article, which of the followings is NOT a good way to avoid food waste?

- Ⓐ To invite a small group of guests only.
- Ⓑ To list the food you need before you go shopping.
- Ⓒ To carefully store the leftovers and eat them later.
- Ⓓ To encourage your guests to choose the food they like.

34、What is the last sentence of this article most likely to mean?

- Ⓐ Homemade fruitcake is the best for it is freshly made on the date of Thanksgiving.
- Ⓑ Fruitcake might not be welcome when it is given to your guests as a gift.
- Ⓒ Fruitcake is usually served as the last course at the Thanksgiving Party.
- Ⓓ It is a tradition to eat fruitcake at the Thanksgiving dinner.

35、What can we infer from this article?

- Ⓐ Stealing food is a crime in most of the countries.
- Ⓑ Poor countries cannot afford to buy enough food.
- Ⓒ Thanksgiving is celebrated for the harvest.
- Ⓓ Food shortage is a serious global problem.

Tea and coffee are two of the most widely consumed beverages, so they are often the subject of much comparison. Which is better? Here is some objective analysis. First of all, concerning health benefits, green tea is one of the healthiest beverages you can drink. The potent antioxidants in green tea neutralize free radicals, protecting your body from their harmful effects. For people who drink it regularly, green tea may help prevent cancer, atherosclerosis, rheumatoid arthritis, diabetes and more. Coffee has its own potent antioxidants and its own demonstrated health benefits as well. Some studies have found that coffee actually contains more antioxidants than green tea; besides, coffee has been shown to reduce the risk of diabetes, Parkinson's, colon cancer, asthma and depression. Secondly, both coffee and green tea contain caffeine though the latter in smaller amounts. Too much caffeine can make you nervous and jittery. Overuse of coffee can cancel out many of its health benefits, causing irritability, anxiety and interrupting your sleep. Green tea, on the other hand, allows you to experience the benefits of caffeine, including the energy boost, without the jitters. Finally, both coffee and tea can bring you the gourmet experiences. When it comes to

offering a gourmet experience, both beverages can deliver if they are good quality. Rich, fragrant coffee actually has an aromatherapeutic effect. Researchers have found that simply smelling it reduces stress. But good green tea has an enticing fragrance all its own, too. Both beverages have their own particular brewing rituals that enhance the gourmet experience. In the US, it may be easier to find gourmet coffee than it is to find gourmet tea. Several popular gourmet coffee shops ply their coffee beans in local grocery stores around the country, but if you go to a grocery store looking for green tea, all you are going to find is teabags. Bagged green tea is like gas station coffee - it will do in a pinch, but if you have “gourmet” tastes you probably won't enjoy it. So, if you are a gourmet coffee drinker who would like to start drinking green tea as a healthy addition to your diet, take the time to find some good loose leaf green tea first.

36、What is the article mainly about?

- Ⓐ To introduce the procedure of making good coffee and tea.
- Ⓑ To make objective comparisons between coffee and tea.
- Ⓒ To discuss the pros and cons of drinking coffee and tea.
- Ⓓ To provide suggestions for selecting coffee and tea.

37、According to the article, the risk of which of the following diseases can NOT be reduced by drinking coffee?

- Ⓐ Asthma.
- Ⓑ Diabetes.
- Ⓒ Parkinson's disease.
- Ⓓ Rheumatoid arthritis.

38、According to the article, which of the following statements about green tea is NOT correct?

- Ⓐ It is a pity green tea is not as fragrant as coffee.
- Ⓑ Green tea can protect our body against free radicals.
- Ⓒ Both green tea and coffee contain antioxidants that can prevent cancer.
- Ⓓ The caffeine in green tea can boost our energy without interrupting our sleep.

39、Where are you are most likely to find this article?

- Ⓐ Bank statement.
- Ⓑ Museum brochure.
- Ⓒ Restaurant guide.
- Ⓓ Technical report.

40、According to the article, which of the following statements is correct?

- Ⓐ Coffee can help to prevent more diseases than green tea does.
- Ⓑ Good loose leaf green tea is more expensive than gourmet coffee.
- Ⓒ To smell coffee can help to reduce our stress as well as to drink it.
- Ⓓ Regularly drinking coffee and green tea can help to cure some diseases.

IV. Composition (30%)

Instructions: Based on your own learning experience, write an essay to explain what a good English teacher may be like. This essay should have at least three paragraphs.

國文試題

一、單一選擇 (46%)

1、舌面前音聲母與韻母相拼音情形，下列選項何者正確？

- Ⓐ 可以和所有複韻母相拼音
- Ⓑ 可以和所有單韻母相拼音
- Ⓒ 可以和韻母乙、ㄨ乙相拼音
- Ⓓ 可以和所有的結合韻母相拼音
- Ⓔ 可以和齊齒呼和撮口呼韻母相拼音

2、在下列各選項裡，「」中的上聲字音，何者和兩「把」傘的讀法相同？

- Ⓐ 「許」老師
- Ⓑ 百「草」堂
- Ⓒ 「小」雨點
- Ⓓ 「買」土產
- Ⓔ 兩杯「水」

3、「教育乃人類升沉的樞紐」，分析這句話中每個字的韻符，下列選項何者錯誤？

- Ⓐ 合口呼有 1 個
- Ⓑ 齊齒呼有 2 個
- Ⓒ 單韻符有 3 個
- Ⓓ 複韻符有 4 個
- Ⓔ 聲隨韻符有 3 個

4、以下「」裡的注音，何者完全正確？

- Ⓐ 複姓「澹」臺：音「ㄉㄢˋ」
- Ⓑ 「閱」牆之禍：音「ㄩㄢˋ」
- Ⓒ 孜孜「矻」矻：音「ㄑㄩˊ」
- Ⓓ 「莘」莘學子：音「ㄒㄩㄣˊ」
- Ⓔ 模「稜」兩可：音「ㄌㄥˊ」

5、下列選項，何者用字完全正確？

- Ⓐ 秉氣凝神

- Ⓑ 冒然行事
- Ⓒ 誣讒他人
- Ⓓ 代罪立功
- Ⓔ 別出新裁

6、請依「句子」的基本功能，指出下列正確的選項：

- Ⓐ 環堵蕭然：敘述句
- Ⓑ 天氣越來越熱：表態句
- Ⓒ 故人具雞黍：判斷句
- Ⓓ 生命是什麼呢：表態句
- Ⓔ 他有一雙眼睛：敘述句

7、以下書信裡結尾敬辭，何者是正確的選項？

- Ⓐ 敬請 大安：用於長輩
- Ⓑ 敬請 籌安：用於學界
- Ⓒ 敬請 鈞安：用於師長
- Ⓓ 敬頌 崇祺：用於親友長輩
- Ⓔ 即祝 刻安：用於親友晚輩

8、有關吊唁的題辭，下列選項何者正確？

- Ⓐ 西河之痛：父母之喪
- Ⓑ 風木之思：業師之逝
- Ⓒ 雁行失序：夫妻之喪
- Ⓓ 泰山其頽：岳父之喪
- Ⓔ 風冷杏壇：師長之喪

9、下列敘述何者正確？

- Ⓐ 《十三經》中，文字最少的是《論語》
- Ⓑ 《周禮》原名《周官》，屬於《儀禮》之一篇
- Ⓒ 《詩經》的「六義」是：賦、比、興、觀、群、怨
- Ⓓ 《大學》、《中庸》原附於《儀禮》之末，北宋程頤將之取出獨立成書
- Ⓔ 《公羊傳》為今文經，以解釋經文為主；《左傳》為古文經，以史事為主

10、下列關於《史記》、《漢書》的敘述，何者正確？

- Ⓐ 《漢書》始撰於班固，由班超、班昭續成
- Ⓑ 《漢書》體例悉依《史記》，僅改「書」為「志」

- ◎紀傳體史書始於《史記》，編年體史書始於《漢書》
- ◎《史記》將項羽列入「本紀」，陳涉、孔子列入「世家」
- ◎《史記》記載上至黃帝，下至漢武帝；《漢書》上至春秋，下至王莽篡漢

11、「小說家，台中縣潭子人，出生於1914年，被譽為『文學天才』、『臺灣第一才子』，著名作品有〈牛車〉、〈冬夜〉等。」根據上述各項特點推測，這位小說家最有可能是：

- ◎呂赫若
- ◎洪醒夫
- ◎楊逵
- ◎蘇紹連
- ◎宋澤萊

12、下列關於「曲」的說明，何者是正確的？

- ◎散曲分「小令」與「散套」
- ◎「南曲」源於唐人樂府
- ◎「傳奇」又稱「北曲」，有科、白
- ◎「小令」創作最多的作家是馬致遠
- ◎關漢卿是元代前期散曲作家，代表作為〈西廂記〉

13、下列關於「小說」的敘述，何者正確？

- ◎唐代小說稱「平話」如：沈既濟〈枕中記〉
- ◎宋代文言小說有「志怪」、「傳奇」二類
- ◎宋人長篇白話小說有：〈鶯鶯傳〉、〈紅線傳〉、〈虬髯客傳〉
- ◎抱甕老人《今古奇觀》是明代的長篇章回小說
- ◎《七俠五義》是一部清朝的諷刺小說

14、「全世界，都有小孩做『大事』的例子。這些孩子都不是天縱英明、出身優渥或從小刻意栽培。根據研究，一開始他們多是『普通的孩子』，從一個很微小的動機和行動出發。」（《親子天下》44期）

如欲為本篇文章設計出□+□=□的形式標題，下列選項何者最佳？

- ◎刻意栽培+天縱英明=普通小孩
- ◎普通小孩+天縱英明=做大事的小孩
- ◎普通小孩+微小的動機=做大事的小孩
- ◎刻意栽培+做大事的小孩=微小的動機
- ◎做大事的小孩+普通小孩=全世界的小孩

- 15、光緒 14 年，雲林縣第一任知縣陳世烈作〈珠潭映月〉：「子海東水社大奇觀，山繞清潭眼界寬。峰映月明珠照乘，石輝日暖玉光丹。荷花帶露誰知暑，修竹藏雲那覺寒。混沌初分成太極，咸池出谷鏡中看。」陳書亦作〈珠潭浮嶼〉：「珠潭埔社稱奇特，一嶼孤浮四面空。但覺水環山以外，居然山在水之中。色分丹碧東西異，象判陰陽日月同。試誦媚川靈運句，低徊合璧興無窮。」由其內容描述可知，此「珠潭」應指下列那一水域？
- Ⓐ 西湖
 - Ⓑ 日月潭
 - Ⓒ 洞庭湖
 - Ⓓ 陰陽海
 - Ⓔ 阿里山翠湖
- 16、「敵害在內，則劫其地；敵害在外，則劫其民；內外交害，則劫其國。如：越王乘吳國內蟹稻不遺種而謀攻之，後卒乘吳北會諸侯於黃池之際，國內空虛，因而搗之，大獲全勝。」（《國語·吳語·越語下》）此段文字最可能出現在《三十六計》中那一計的按語？
- Ⓐ 遠交近攻
 - Ⓑ 欲擒故縱
 - Ⓒ 反客為主
 - Ⓓ 借刀殺人
 - Ⓔ 趁火打劫
- 17、你和一位土著被困在非洲叢林，既無食物，也無水喝，於是你將把這位土著當作「天才」，因為他懂得各種求生的技巧。相反地，如果把他帶到辦公室，要他使用電腦，那麼情況將會完全不同，你可能會認為他是「白癡」。上面敘述可能啟發一些道理，下列那個選項並不符合？
- Ⓐ 天生我才必有用
 - Ⓑ 一個人最大的勝利就是戰勝自己
 - Ⓒ 你眼中的蠢材，很可能也只是放錯地方的人才
 - Ⓓ 生命的最高境界，即是選對舞台，走出自己的路
 - Ⓔ 任何人或物，只要放對了地方，都會成為有用的「可造之材」
- 18、曼古埃爾：「我們若是把喬納森·斯威夫特的《格列佛遊記》存檔在『小說類』的條目下，那麼它就是一本幽默的冒險小說；若是將它放在『社會學』的條目下，則變成一部對十八世紀英國的挖苦研究；如果將它放在『兒童文學類』的條目下，則是一部關於侏儒、巨人和會說話的馬的有趣寓言；假使

在『異想類』的條目下，則變成科幻小說的先驅；若是放在『旅行類』的條目之下，則是西方旅遊文學的典範之一。」

根據上文敘述，下列選項何者最切合其意旨？

- Ⓐ 圖書館的分類不明確，應當重新訂定
- Ⓑ 把《格列佛遊記》歸類在小說條目下，容易產生爭議
- Ⓒ 能夠歸類在多種條目下的著作，是世界名著的特徵之一
- Ⓓ 所有的分類都是分割的，善讀者能把書解放，讓書回復自由
- Ⓔ 《格列佛遊記》歸類在生物學條目下，將成為一本胡思亂想的書

□請仔細閱讀下列短文，再回答後續的兩個問題

我們生活中的元素種類，在這一萬年間持續增加。特別是到了最近這 50 年左右，更是明顯變多，數量是原始時代的 5 倍，江戶時代（約 17 至 19 世紀）的 2 倍。家裡的客廳，集合了來自全世界的元素。像是液晶螢幕使用的錫來自中國，塑膠和塑膠布是原本存在於阿拉伯地底的石油，也就是由碳所構成的。隨著網際網路的普及，全世界的生活空間由銅與二氧化矽（就是光纖）交織成的網路連結在一起；在光纖中的電子與光，正咻咻地交錯飛舞。像這樣有著多種不同元素活動的時代，大概是隕石最後一次衝撞地球以來首見吧。當我們聽到「全球化」這三個字，通常會聯想到金融或政治的相關話題，但實際上，元素才是真正的全球化。我們的生活早就以元素為媒介，跟世界串連在一起了。（取自《元素生活》）

19、前段文字的主要論點，與下列那個選項配合最恰當？

- Ⓐ 最近 50 年左右生活中的元素種類是原始時代的 5 倍
- Ⓑ 我們生活中的元素種類，在這一萬年間持續增加
- Ⓒ 我們的生活早就以元素為媒介，跟世界串連在一起了
- Ⓓ 有多種不同元素活動的時代，乃是隕石最後一次衝撞地球以來首見
- Ⓔ 隨著網際網路的普及，全世界的生活空間由銅與二氧化矽連結在一起

20、承上，下列選項何者最適合佐證前段文字的主要論點？

- Ⓐ 家裡的客廳，集合了來自全世界的元素
- Ⓑ 現今我們生活中的元素種類是江戶時代的 2 倍
- Ⓒ 銅與二氧化矽等元素快速的衍生出多種不同元素
- Ⓓ 我們的生活早就以元素為媒介，跟世界串連在一起了
- Ⓔ 我們聽到「全球化」這三個字，通常會聯想到金融或政治的相關話題

□請仔細閱讀下列短文，再回答後續的三個問題

你的情緒和行為會被連你自己都未意識到的事件所促發。在甫問世即變成經典的實驗中，心理學家巴夫和他的同事請 18 歲到 22 歲的紐約大學學生從五個字中選四個字造句。有一組學生一半的造句裡包含跟老人有關的字眼，做完之後，這組年輕學生要到走廊另一端做另一項實驗，實驗者測量他們穿越走廊的時間，果然如巴夫所預測的，以老人相關字眼來造句的這組學生，穿越走廊的時間比其他人顯著緩慢。

這包含了兩階段的促發，第一，這些字促發了「老年」的思想，雖然「老」這個字從來沒有出現過；第二，這些關於老的思想，促發了行為，使人走得比較慢，因為老跟慢是聯結在一起的。這些都是在不自覺的情況下發生的，事後問起這些大學生，沒有一個人注意到這些字有共同的主題（老），他們都堅持自己沒有受到那些字的影響，老年的念頭從來沒有進入他們心中，然而，他們的行動卻被改變了。這個顯著的促發現象——□□□□□□——稱為「意念動作效應」。

我們認為自己是有意識而且自主地做出判斷和選擇，但是部分促發效應的研究發現威脅到這種自我形象。（出處《快思慢想》）

21、文中第二段的空格，最適合填入的選項是？

- Ⓐ 念頭影響行為
- Ⓑ 語言反應心靈
- Ⓒ 主題影響判斷
- Ⓓ 動作反應語言
- Ⓔ 詞彙影響抉擇

22、上文結論為「我們認為自己是有意識而且自主地做出判斷和選擇，但是部分促發效應的研究發現威脅到這種自我形象」，下列選項何者最適合為此結論之論據？

- Ⓐ 這些字促發了「老年」的思想，雖然「老」這個字從來沒有出現過
- Ⓑ 這組年輕學生要到走廊另一端做另一項實驗，實驗者測量他們穿越走廊的時間
- Ⓒ 這些關於老的思想，促發了行為，使人走得比較慢，因為老跟慢是聯結在一起的
- Ⓓ 心理學家巴夫和他的同事請 18 歲到 22 歲的紐約大學學生從五個字中選四個字造句
- Ⓔ 事後問起這些大學生，沒有一個人注意到這些字有共同的主題（老），他們都堅持自己沒有受到那些字的影響

23、下列選項所陳述的研究，何者最能支持上文的結論？

- Ⓐ史金納將老鼠關進箱內，箱內設置一個桿子，老鼠肚子餓在內探索掙扎，誤觸了桿子食物掉出來，接下來老鼠肚子餓時就會四處探索，在之中又誤觸了桿子，經過多次的探尋，老鼠漸漸知道當他觸碰桿子，就會有食物掉落，進而不需要到處探索，老鼠在實驗中學會了壓桿這動作。
- Ⓑ英國一所大學辦公室成員自己投錢到「誠實箱」支付喝咖啡的費用，茶水間牆上貼有咖啡的價格。進行實驗時，價目表上出現海報，連續十週，每一週海報的圖像都不同，隨著圖像的不同，誠實箱裏的金額卻有顯著不同。第一週，海報為一雙眼睛時，平均每公升牛奶有 70 便士；第二週，海報為花卉時，平均每公升牛奶為 15 便士。
- Ⓒ兩位心理學家邀請了一些志願者參與了試驗。他們告訴受試者，鑒於會談可能涉及極其私人化的內容，因此每個人將被分隔在不同的房間，僅使用對講機來相互溝通。在會談中，一名參與人員將假裝突然病發。當受試者認為除發病者外，他們是參與討論的唯一一人，85%的人會在對方假裝病發時自告奮勇地離開房間去尋求幫助。但是，當受試者認為還有另外四個人參與討論時，只有 31%的人在對方發病後尋求幫助，剩下的受試者猜測會有其他什麼人去照顧此人。
- Ⓓ學者設計了「老鼠樂園」，充分滿足老鼠的交配、生育、哺育、嬉戲的多功能空間，16 隻老鼠放進樂園為實驗組，另外放 16 隻於籠子裏當控制組，都提供自來水和含嗎啡水，結果：籠子裡的老鼠喝嗎啡水的比例是老鼠樂園裡的 16 倍！接著，把上癮的老鼠放進樂園裏，這些老鼠也會選擇多喝自來水，少碰嗎啡水。
- Ⓔ實驗中給被試者戴上透明的護目鏡，使其難以產生視覺；用空氣調節器發出的單調聲音限制其聽覺；手臂戴上紙筒套袖和手套，腿腳用夾板固定，限制其觸覺。被試者單獨待在實驗室裏，連續待了三四天後，受試者會產生許多病理心理現象：出現錯覺幻覺、注意力渙散、思維遲鈍、焦慮等，實驗後數日方能恢復正常。

二、摘要分析（18%）

時光如飛，荷開始老了。

荷看到紅顏褪色，肌膚漸漸失去光潤；荷為風華不再，日影西斜的生命感到悲哀恐懼。難道生命就這樣無聲無息的結束嗎？那些光彩呢？那些掌聲呢？

牠向造物主求救，造物主溫柔的看著牠說：「孩子！這是每一個生命必經之路啊！」

荷仍然做最後的掙扎：「可是，你不是說生命是永恆的嗎？」

造物主微笑了。「生命的奧妙就在這裡啊！沒有生，就沒有死；沒有死，就沒有生。」

在獨自薄涼的西風裡，荷曾經美麗的容顏一點點的凋零、剝落。極度絕望中，荷突然發現小小的子房自牠體內成形，隨著牠蒼老的地步緩緩膨脹長大。荷開始明白造物主的話，「唯有死亡，才能再生」。

當最後一片花瓣隨風而逝後，荷心滿意足，含笑而逝。次年初夏，水中升起無數新荷，清涼無垢，又領一季風騷。(杏林子〈荷之一生〉)

文中描述的是荷花生命的變化，但其實表達的是杏林子個人生命態度的轉折。閱讀上文後，請回答下列二個問題：

1、請摘句說明作者運用了那些修辭技巧？（以 100 字為限）

2、請摘句說明作者的生命態度經歷那些轉折？（以 100 字為限）

三、評述作文（36%）

依我看來，學校並不只是傳授大量知識的工具。知識是死板的，學校是為生氣蓬勃的人們服務的。它應該幫助青年人發展一些有益於公共福利的特性和能力，可是，這並不意味著個性應被消滅，或者個人應該像蜜蜂和螞蟻一樣成為社會的工具。相反的，我認為一個個人的創造力無從發揮、個人的目標無從追求的社會，必是沒有進展可能的可憐社會，教育的目的在訓練一些能獨立思考和獨立行動的個體，在追求高度生活水準的前提下貢獻出自己的力量。(節錄自愛因斯坦〈論教育〉)

請以「我的教學理念」為題，先評析愛因斯坦的教育觀，並進而論述你對「有效教學」、「多元評量」、「補救教學」等議題的看法。(限議論文，文長不限)

國立臺中教育大學 102 學年度教師專業碩士學位學程招生考試

教育學試題

- 一、霸凌問題存在於校園之中久矣！然而，似乎於今為烈。請問應如何從學童、父母、學校及社會等方面處理校園霸凌的問題。(25%)
- 二、師生關係的核心在「教育愛」(Educational Love)的觀念，請從斯普朗格(Eduard Spranger)的觀點說明「教育愛」的由來、層級和特性。(25%)
- 三、試申「To treat equals equally, to treat unequals unequally」之意，並說明其在教育上的涵義。(25%)
- 四、有鑒於教師課堂集體性的教學往往無法適合個別學生的學習需求，因此國外最近興起差異性教學(differentiated instruction)的做法。請說明差異性教學的意義與具體內涵？差異性教學的理論基礎？差異性教學的教學內容策略、教學活動的實施、教學的評量、教學的環境設計。(25%)

數學試題

※請於答案卷作答

一、填充題 (75%，每格 5%)

1、設 a, b 為自然數，且 a 公分和 b 公分分別為長方形的長和寬，若長方形周長的數值和面積的數值相等，則 (a, b) 的所有情形是 ()。

2、設 α, β 為 $x^2 + 3x - 1 = 0$ 之二根，則以 $|\alpha|, |\beta|$ 為二根之一元二次方程式 (領導係數為 1) 是 ()。

3、將無限小數 $12.\overline{3456}$ 化成分數，其結果為 ()。

4、設 $f\left(\frac{x-2}{2x+1}\right) = 5x-3$ ，則 $f(-1) = ()$ 。

5、丟一個公正的骰子，若出現點數 k ，可以得到 k^2 元，則丟骰子一次可得到金額的期望值為 () 元。

6、分母是 2013 的最簡真分數有 () 個。

7、 $1^2 + 11^{12} + 21^{22} + 31^{32} + 41^{42} + \dots + 2011^{2012}$ 之個位數字為 ()。

8、 $2^3 + 12^{13} + 22^{23} + 32^{33} + 42^{43} + \dots + 2012^{2013}$ 之個位數字為 ()。

9、空間中兩球 $x^2 + y^2 + z^2 = 4$ 與 $x^2 + y^2 + (z-10)^2 = 9$ 被 $x=0$ 之平面截出兩圓 O_1 與 O_2 ，則 O_1 與 O_2 之外公切線長為 ()。

10、有三個正質數由小到大排列分別為 x, y, z ，若 $x + y + z = 227$ 且 xyz 之值為最大，則 $(x, y, z) = ()$ 。

11、若定義 $a \otimes b = a^2 - b^2$ ，則 $(2011 \otimes 2012) \otimes (2012 \otimes 2013) = ()$ 。

12、有一自然數 n ，其個位數字為 6，將個位數字移到此自然數 n 之首位，所得的數為原數的 4 倍，則自然數 n 最小為 ()。

13、試求 $9 \times 99 \times 999 \times \dots \times \underbrace{999\dots 9}_{999\text{個}9}$ 之乘積除以 1000 的餘數為 ()。

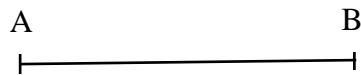
14、 $(50 + 49x + 48x^2 + \dots + 3x^{47} + 2x^{48} + x^{49})(50x^{49} + 49x^{48} + 48x^{47} + \dots + 3x^2 + 2x + 1)$ 乘開後， x^{49} 項之係數為 ()。

15、解聯立方程組
$$\begin{cases} x + y + z = 5 \\ 4x - 2y - 3z = 0 \\ x^2 = 2y + z \end{cases}$$
，則 $(x, y, z) = (\quad)$ 。

二、計算證明題（25%，請務必寫出計算過程和結果）

1、試證明 $\sqrt{2}$ 為無理數。（8%）

2、如下圖所示，甲、乙兩人分別從 A、B 兩地相向等速率而行，兩人第一次相遇在距離 A 地 1000 公尺的地方，兩人相遇後繼續前進，並分別於 B、A 兩地折返，隨後第二次相遇於距離 A 地 500 公尺的地方，試求 A、B 兩地的距離。
(8%)



3、正三角形 ABC 內部一點 P ，滿足 $\overline{PA} = 3, \overline{PB} = 4, \overline{PC} = 5$ ，試求 ABC 的面積。（9%）