國立臺中教育大學 105 學年度教師專業碩士學位學程招生考試
英文試題

I. Vocabulary (20%; 2 points for each question)

1. _____ is a chest illness causing breathing problems.
   (A) Concussion
   (B) Asthma
   (C) Heart attack
   (D) Diarrhea

2. He touched a hot _____ on the stove and burned his finger.
   (A) sink
   (B) fireplace
   (C) burner
   (D) bulb

3. Texis and cars use the road; _____ use the sidewalk.
   (A) pedestrians
   (B) motorists
   (C) Mercedes drivers
   (D) trucks

4. Mexico _____ Switzerland 3 to 2. In other words, Switzerland lost to Mexico 3 to 2.
   (A) tied
   (B) drew
   (C) beat
   (D) was defeated

5. Seji Ozawa is the _____ of the Boston Symphony Orchestra.
   (A) guitar player
   (B) painter
   (C) playwright
   (D) conductor

6. Panic was _____ after the dam burst.
   (A) widespread
   (B) unique
   (C) obscure
   (D) singular

7. The price of fruit increased because it was _____.
   (A) prevalent
   (B) odd
   (C) scarce
   (D) vital

8. F. D. Roosevelt was the only man to have been elected president of the United States four _____ times.
   (A) significant
   (B) successive
   (C) symmetrical
   (D) notable

9. After a hot day, the evening cooled to a _____ temperature.
   (A) balmy
   (B) stuffy
   (C) sweltering
   (D) scorching

10. Coconuts are often used in _____ form in baking.
    (A) chilly
    (B) freezing
    (C) desiccated
    (D) soaking

II. Grammar (20%; 2 points for each question)

11. Which sentence uses an apostrophe correctly?
    (A) The people's wishes were ignored by the government.
    (B) The peoples' wishes were ignored by the government.
    (C) The peoples wish'es were ignored by the government.
    (D) The peoples wishes' were ignored by the government.

12. What does the word <u>Others</u> refer to in the passage below?

Some animals, such as dogs, give birth to live young. Others, such as crocodiles, lay eggs that are left to hatch.

(A) animals

(B) dogs

(C) crocodiles

(D) eggs

13. Which of these should be written as two sentences?

(A) I like carrots and he likes cauliflower.

(B) I like beans and potatoes, they are very tasty.

(C) I like chips, but I don't like gravy.

(D) Dinner is the best meal because it is hot.

14. What is the name of the punctuation mark used between the two main clauses below?

I love punk rock; my friend, however, likes softer rock – such as folk rock.

(A) colon

(B) semicolon

(C) comma

(D) dash

15. Which sentence is written in the active voice?

(A) The party was held in the restaurant.

(B) The floods were caused by the typhoon.

(C) The food gave us stomach problems.

(D) The book was given to me by Paul.

16. Where is the correct place to insert a colon in the sentence below?

The company offered three benefits to its employees health insurance, a pension and housing allowance.

(A) After 'company'

(B) After 'benefits'

(C) After 'employees'

(D) After 'health'

17. Which of the following sentences is grammatically correct?
    (A) I ate large piece of steak that was very difficult to chew.
    (B) I ate large pieces of steak that was very difficult to chew.
    (C) I ate large piece of steak that were very difficult to chew.
    (D) I ate large pieces of steak that were very difficult to chew.

18. How are the underlined words used in the sentence below?
    My sister eats at the restaurant where my friend works.
    (A) as a noun phrase
    (B) as a preposition phrase
    (C) as a relative clause
    (D) as a main clause

19. Which of the following sentences is punctuated correctly?
    (A) The situation was troubling disturbing, actually, so we called – for help.
    (B) The situation was troubling – disturbing, actually – so we called for help.
    (C) The situation was troubling, disturbing – actually – so we called for help.
    (D) The situation was troubling disturbing actually – so we called for help.

20. Which sentence uses the hyphen correctly?
    (A) There are thirty six year-olds in Mrs. Thompson's class.
    (B) There are thirty six-year-olds in Mrs. Thompson's class.
    (C) There are thirty-six year olds in Mrs. Thompson's class.
    (D) There are thirty-six-year-olds in Mrs. Thompson's class.

III. Cloze (20%; 2 points for each question)

If one reflects on the career of a hypothetical young man who goes to work at the age of twenty-two, he has a long career of work __21__ before him. We may make some __22__ calculations. He can look forward to fifty-three years of life, of which he can expect to spend ten after __23__. The very most he can expect to spend at work each year, __24__ forty-three years of work, is __25__ 1,900 hours per year.

21. (A) stressing   (B) stretching   (C) strengthening   (D) struggling
22. (A) revealing   (B) concealing   (C) prevailing   (D) repealing
23. (A) resignation   (B) renouncement   (C) retirement   (D) reinstitution
24. (A) consuming   (B) resuming   (C) presuming   (D) assuming
25. (A) approximately   (B) appropriately   (C) appealingly   (D) apprehensively

English is the most widely used language in the history of our __26__, understood in some way by at least one out of every seven human beings around the __27__. English has __28__ the largest vocabulary of all the world's languages, perhaps as many as two million words, and has generated one of the noblest bodies of literature in the __29__ of the human race. __30__, it is not time to face the fact that English is a crazy language.

26. (A) plant   (B) plan   (C) plane   (D) planet
27. (A) glove   (B) globe   (C) glimpse   (D) glass
28. (A) acquired   (B) inquired   (C) required   (D) aspired
29. (A) angles   (B) angels   (C) annals   (D) analysis
30. (A) Alternatively (B) Fortunately (C) Additionally (D) Nonetheless

IV. Reading Comprehension (30%; 2 points for each question)

Cognitive therapy is based on the idea that some psychological problems are maintained by inappropriate ways of thinking. It helps people to recognize and understand their current thought patterns and shows them ways to consciously change the way they think. Cognitive therapy does not look into past events and is often used in conjunction with behavior therapy. People who suffer depression or those who lack confidence often benefit from cognitive therapy because it helps them identify and change the thoughts that contribute to their low mood or self-esteem. Such thoughts may include "I am a failure," and "no one likes me because I'm ugly." By pointing out inconsistencies in thinking, cognitive therapy can be _____ help to people who have distorted body images, such as those with anorexia nervosa. Similarly, when used with behavior therapy, cognitive therapy can help people overcome thought patterns and/or behavior that are habitual and unnecessary. In conjunction with drug treatment, it has been found to help some people with schizophrenia cope better with certain symptoms, such as hearing voices.

31. What would the author most likely discuss after this paragraph?
    (A) Why some people hold negative images of themselves.
    (B) The cause for schizophrenia.
    (C) Other symptoms associated with schizophrenia.
    (D) The definition of anorexia nervosa.
    (E) What is involved in a cognitive therapy session.

32. Which of the following is the best proposition to be filled in the blank?
    (A) of
    (B) to
    (C) against
    (D) upon
    (E) for

33. According to the paragraph, which of the following statements is **NOT** true?
    (A) Cognitive therapy can be used in conjunction with behavior therapy.
    (B) Cognitive therapy can be used in conjunction with drug treatment.
    (C) Cognitive therapy asks patients to change their thinking.
    (D) Cognitive therapy asks patients to ignore their thinking.
    (E) Cognitive therapy helps to cure psychological problems.

34. According to the paragraph, cognitive therapy has been found beneficial for people
    with _____.
    (A) distorted body images
    (B) low self-esteem
    (C) depression
    (D) habitual and unnecessary behaviors
    (E) All of the above.

35. Which of the following is the best title for this paragraph?
    (A) The origin of cognitive therapy
    (B) What is cognitive therapy?
    (C) How does cognitive therapy proceed?
    (D) Who needs cognitive therapy?
    (E) The effectiveness of cognitive therapy

In a sense, the term "stage fright" is a misnomer - fright being a shock for which one is unprepared. For professional performers, the **unmooring** terror hits as they prepare to do the very thing they're trained to do. According to one British medical study, actors' stress levels on opening night are equivalent "to that of a car accident victim." When Sir Laurence Olivier was in his sixties, he considered retiring from the stage because of stage fright. It "is always waiting outside the door," he wrote in Confessions of an Actor. "You either battle or walk away." The Canadian piano virtuoso Glenn Gould,

who suffered from disabling stage fright, did walk away, abandoning the public platform for the privacy of the recording studio. "To me the ideal artist-to-audience relationship is one to zero," he said.

36. According to the passage, what would be a more appropriate name for stage fright?
    (A) calculated panic
    (B) post-traumatic numbing
    (C) acute reaction disorder
    (D) pre-performance anxiety
    (E) natural psychological disorder

37. Which of the following best describes the use of "unmooring" in the passage?
    (A) Anxiety that feels like the performer is without any support.
    (B) Nervousness that keeps the performer motivated.
    (C) Anxiety that has been freed from the body.
    (D) Fear that feels like it is weighing the performer.
    (E) Worry that results from lack of practice.

38. Which of the following is **NOT** a potential result of stage fright as it is described in the passage?
    (A) An actor channels his anxiety into an emotional performance.
    (B) A dancer fails to go out onto stage due to fear.
    (C) A comedian gives up his career because he can no longer think of good material.
    (D) A singer permanently quits performing due to intense fear of the audience.
    (E) A singer calls off her concert a day before it is scheduled to take place.

39. What is the tone of the author?
    (A) cheerful and joyful
    (B) sarcastic and cynical
    (C) informing and argumentative
    (D) bored and uninterested
    (E) cold and unfriendly

40. According to this passage, which of the following is **NOT** true?
    (A) Stage fright is the stress performers feel as they prepare to perform on stage.
    (B) Stage fright could be very intense.
    (C) Some people give up their carrier because of stage fright.
    (D) Stage fright can best be cured by building artist-audience relationship.
    (E) Glenn Gould gave up performing on public stage because of stage fright.

    Despite the beliefs of some 20 million people, there is no evidence that accidents are more likely to happen on Friday the 13th. On the contrary, some studies have shown there are actually fewer accidents on Friday the 13th. A recent report completed by a Dutch insurance company showed that there were fewer incidents of fires and thefts on Fridays that fell on the 13th than on any other Fridays in the same year. It is highly probable that this reduction in accidents owes itself to the fear of Friday the 13th itself. If people are more cautious on Friday the 13th, then there are likely to be fewer accidents.

    If, then, there is no significant evidence that Friday the 13th is any more dangerous than any other day of the year, why do friggatriskaidekaphobics remain convinced of its unluckiness? While the historical or folk traditions may have something to do with this belief, people may also use associational links to justify their superstitions. If a friggatriskaidekaphobic loses his wallet on Tuesday the 21st, for example, he would probably not assign any meaning to the date on which this event occurred. If the same individual lost his wallet on Friday the 13th, however, he might be likely to conclude that the **inauspicious** nature of Friday the 13th was at fault.

41. This passage is most likely an excerpt from
    (A) the introduction to an article about friggatriskaidekaphobia.
    (B) the introduction to a study about accidents occurring on Friday the 13th.
    (C) a longer work proving that superstitions are justified by real-world events.
    (D) a longer work that analyzes evidence about the superstition of Friday the 13th.
    (E) the conclusion of a safety tip brochure.

42. What is the main idea of these two paragraphs?
    (A) Friday the 13th is truly a very unlucky day.
    (B) People are usually more cautious on Friday the 13th.
    (C) There is no evidence that accidents are more likely to happen on Friday the 13th.
    (D) Superstitious beliefs about Friday the 13th mainly result from historical and folk traditions.
    (E) Friggatriskaidekaphobics are usually more cautions on Friday the 13th.

43. Which of the following pieces of evidence, if true, would best support the author's argument at the end of the first paragraph?
   (A) Major airlines report that there is no significant drop in the number of passengers who fly on Friday the 13th.
   (B) Studies performed in the United Kingdom reveal that significantly fewer people choose to drive their cars to work on Friday the 13th.
   (C) More traffic accidents occur on Fridays than on any other day of the week.
   (D) In ancient Egypt, the number 13 was actually considered lucky by the pharaohs.
   (E) Nowadays, most young people feel Friday the 13th is not much different from any other day of the year.

44. According to paragraph 2, the man who loses his wallet and blames Friday the 13th is
   (A) wrongly assuming a causal relationship between the two events.
   (B) assuming that because an event could happen, it is inevitable that it will happen.
   (C) refusing an argument due to a lack of conclusive evidence.
   (D) making a proposal based on an inadequate sample.
   (E) defying the causal relationship between bad luck and Friday the 13th.

45. As used in paragraph 2, which is the best antonym for inauspicious?
   (A) predictable
   (B) pleasant
   (C) unfavorable
   (D) successful
   (E) fortunate

V. Writing (10%)

Directions: The ROC Ministry of Foreign Affairs has hosted contests of recruiting short clips filmed by talents full of creativity to communicate Taiwanese stories through moving images for several years. If you were one of the contestants, what "theme" and "stories" would you film to showcase Taiwan and raise the profile of Taiwan abroad? Please write a paragraph to describe your idea.

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國文試題

一、選擇題（46%，每題 2%）

1、發音時，舌位由低向高移動的韻是哪一個選項？
 (A) ㄞ
 (B) ㄚ
 (C) ㄜ
 (D) ㄨㄛ

2、下列選項注音，何者正確？
 (A) 坎「坷」（ㄎㄜ）
 (B) 「羸」（ㄌㄟˇ）弱
 (C) 朋「比」（ㄅㄧˇ）為奸
 (D) 「跬」（ㄎㄨㄟˇ）步千里

3、下列各組語詞「 」中的字，何者讀音兩兩相同？
 (A) 外「埠」／訾「簿」
 (B) 打「烊」／「庠」序
 (C) 「箴」言／「緘」封
 (D) 如花笑「靨」／貪得無「饜」

4、下列哪一組「 」中的注音寫成國字後，完全相同？
 (A) 手「ㄨㄢˋ」／「ㄨㄢˋ」惜
 (B) 「ㄊㄠˊ」鑄化育／「ㄊㄠˊ」神費力
 (C) 「ㄈㄣˋ」不顧身／悲「ㄈㄣˋ」填膺
 (D) 連打寒「ㄐㄧㄣˋ」／「ㄐㄧㄣˋ」聲躡足

5、下列選項「 」內文字的解釋，何者**錯誤**？
 (A) 孟子「去」齊（前往）
 (B) 多「謝」後世人，戒之慎勿忘（告訴）
 (C) 君子「疾」夫舍曰欲之而必為之辭（痛恨）
 (D) 若是其「靡」也，死不如速朽之愈也（浪費）

6、下列選項「　」內文字的解釋，何者正確？
　　(A) 用戒不「虞」（欺騙）
　　(B) 輔「車」相依（車子）
　　(C) 食不「厭」精（滿足）
　　(D) 宣子「田」於首山（打獵）

7、下列「　」中的成語用法，何者**使用不當**？
　　(A) 如果沒錢出國，看看旅遊節目「望梅止渴」也不錯。
　　(B) 百貨公司週年慶期間，人潮讓商家「應接不暇」，大發利市。
　　(C) 經過一番努力，終於獲得長官認可，他們不禁「新亭對泣」。
　　(D) 他自從放棄線上遊戲，作息正常，學業表現如同「倒吃甘蔗」。

8、「不愧屋漏為無忝。」（張載〈西銘〉）最接近何意？
　　(A) 雖處貧賤，清廉自守
　　(B) 雖遭讒言，問心無愧
　　(C) 雖罹橫逆，不改志節
　　(D) 雖處暗室，行事磊落

9、下列各選項對「題辭」的說明，何者**錯誤**？
　　(A) 談言微中（用於相士）
　　(B) 洙泗高風（用於壽慶）
　　(C) 著手成春（用於醫院診所）
　　(D) 褒榮華袞（用於報館開業）

10、漢語構詞法中，有一種是前面一個詞素表示事物，後面一個詞素則是事物的單位詞，如「布匹」，下列哪個選項**不是**這種結構？
　　(A) 石塊
　　(B) 手指
　　(C) 車輛
　　(D) 人口

11、成語以數字構詞來表義，如若「五花八門」比喻式樣很多、變化多端。下列含有數字的詞語，何組□中的數字總合最大呢？
　　(A) □分□裂／□光□色
　　(B) □平□穩／□頭□臂
　　(C) □零□落／□申□令
　　(D) □姑□婆／□目□行

12、「手頭」的「頭」無實際意義，是詞綴，這種由詞綴和詞幹組成的詞稱之為派生詞。下列選項「　」，何者**不是**派生詞？
(A) 姐姐在「打掃」，快去幫忙吧！
(B) 他出差了，你「明兒」再來吧！
(C) 「老伴」撒手而去，他一夜頭白！
(D) 這塊地是「阿土」的爺爺傳下來的！

13、下列選項「　」內文字之辭格說明，哪一個正確？
(A) 春天到了，百花「怒」放。（轉品）
(B) 選舉沒師父，有「孫中山」就有。（借代）
(C) 護士把「關金鵲」叫成「關錯鳥」。（析字）
(D) 這裡人去樓空，顯得「好不冷清」。（倒反）

14、下列選項「　」內文字之辭格說明，何者**錯誤**？
(A) 「四海之內」皆兄弟。（指全天下，借代）
(B) 「老贏」轉於溝壑。（指老人和贏弱者，借代）
(C) 道光末年，「長毛」起事。（指太平天國，借代）
(D) 縱一「葦」之所如，凌萬頃之茫然。（指小舟，借喻）

15、書信封文的側書，乃是為了表達對收件人的尊敬之意，使用側書時縮小側於右邊的部分是下列哪一個選項？
(A) 姓
(B) 名
(C) 職稱
(D) 啟封詞

16、下列現代小說家與其作品的組合，何者**有誤**？
(A) 蕭紅〈手〉
(B) 黃春明《放生》
(C) 沈從文《邊城》
(D) 王禎和〈蘋果的滋味〉

17、下列有關古典小說之敘述，何者**為非**？
(A) 六朝筆記又可分為志人與志怪
(B) 《紅樓夢》為清代世情小說代表名作
(C) 《聊齋誌異》屬文言短篇，〈聶小倩〉即出於此
(D) 唐代稱小說為傳奇，〈杜十娘怒沉百寶箱〉即此時愛情名篇

18、司馬談的〈論六家要旨〉中所謂「使人精神專一，動合無形，贍足萬物。其為術也，因陰陽之大順……與時遷移，應物變化。立俗施事，無所不宜。指約而易操，事少而功多。」指的是先秦哪一個家派呢？
  (A) 儒家
  (B) 道家
  (C) 雜家
  (D) 陰陽家

19、下列有關胡適的敘述，何者**有誤**？
  (A) 提出「八不主義」，推行白話文
  (B) 與徐志摩共創新月派，故其詩亦重辭采聲律
  (C) 提倡文學革命，是五四新文化運動的重要人物
  (D) 為推動白話詩而獻身創作，《嘗試集》即此時期作品

20、《周易》的「巽」、「兌」、「坎」、「艮」四卦，分別代表什麼自然現象？
  (A) 風、澤、水、山
  (B) 天、水、火、山
  (C) 水、澤、風、山
  (D) 雷、風、火、地

※請閱讀下列文章後，回答第 21-23 題

> 　　士君子立身事主，既名知己，則當竭盡智謀，忠告善道，銷患於未形，保治於未然，俾身全而主安。生為名臣，死為上鬼，垂光百世，照耀簡策，斯為美也。苟遇知己，不能扶危為未亂之先，而乃捐軀殞命於既敗之後，釣名沽譽，眩世炫俗，由君子觀之，皆所不取也。
>
> 　　蓋嘗因而論之：豫讓臣事智伯，及趙襄子殺智伯，讓為之報仇。聲名烈烈，雖愚夫愚婦莫不知其為忠臣義士也。嗚呼！讓之死固忠矣，惜乎處死之道有未忠者存焉！何也？觀其漆身吞炭，謂其友曰：「凡吾所為者極難，將以愧天下後世之為人臣而懷二心者也。」謂非忠可乎？及觀其斬衣三躍，襄子責以不死於中行氏，而獨死於智伯。讓應曰：「中行氏以眾人待我，我故以眾人報之；智伯以國士待我，我故以國士報之。」即此而論，讓有餘憾矣。
>
> 　　段規之事韓康，任章之事魏獻，未聞以國士待之也；而規也、章也，力勸其主從智伯之請，與之地以驕其志，而速其亡也。郤疵之事智伯，亦未嘗以國士待之也；而疵能察韓、魏之情以諫智伯。雖不用其言以至滅亡，而疵之智謀忠告，已無愧於心也。讓既自謂智伯待以國士矣，國

士，濟國之士也。當伯請地無厭之日，縱欲荒暴之時，為讓者正宜陳力就列，諄諄然而告之曰：「諸侯大夫，各安分地，無相侵奪，古之制也。今無故而取地於人，人不與，而吾之忿心必生；與之，則吾之驕心以起。忿必爭，爭必敗；驕必傲，傲必亡。」諄切懇至，諫不從，再諫之，再諫不從，三諫之；三諫不從，移其伏劍之死，死於是日。伯雖頑冥不靈，感其至誠，庶幾復悟；和韓、魏，釋趙圍，保全智宗，守其祭祀。若然，則讓雖死猶生也，豈不勝於斬衣而死乎？讓於此時，曾無一語開悟主心，視伯之危亡，猶越人視秦人之肥瘠也。袖手旁觀，坐待成敗。國士之報，曾若是乎？智伯既死，而乃不勝血氣之悻悻，甘自附於刺客之流。何足道哉，何足道哉！

　　雖然，以國士而論，豫讓固不足以當矣；彼朝為仇敵，暮為君臣，靦然而自得者，又讓之罪人也！噫！

（明・方孝孺〈豫讓論〉）

21、作者對下列選項人物之評價，何者**最差**？
(A) 豫讓
(B) 郤疵
(C) 任章
(D) 段規

22、下列選項何者**不是**批評豫讓的理由？
(A) 曾無一語開悟主心
(B) 朝為仇敵，暮為君臣
(C) 處死之道有未忠者存焉
(D) 不能察韓、魏之情以諫智伯

23、下列選項何者與本文的敘述內容**不符**？
(A) 豫讓事智伯無二心
(B) 豫讓不足以當國士之名
(C) 豫讓斬衣而死，雖死猶生
(D) 豫讓袖手旁觀，坐待智伯之成敗

二、摘要分析（18％）

請閱讀下列文章後，以 100 字左右摘錄克里斯託〈電子媒介有何不同？〉之重點（9％）；並以 100 字左右寫出你的見解（9％）。

電腦輔助溝通並沒有言語該有的特徵，它也不具備書寫的特徵。首先，它不像傳統書寫的存在有空間的限制：實體篇章是靜止不動，而恆久存於紙頁。一旦落筆，下次重複查看時，篇章依舊不改。要是再翻回先前看的一頁，卻發現有些圖示特徵變了，豈不教人驚訝。光是上述書寫的特性而言，就可知道電腦輔助溝通壓根兒也不像傳統的書寫。……

電腦輔助溝通的另一項特點，更是離傳統書寫更遠了，那就是超連結，這種快速捷徑讓用者可以選擇從某一網頁或網站，直接跳往其他網頁、網站。超連結是網路最基本的結構性質，沒有超連結，網路這個媒介就無法存在了。傳統的書寫也有類似對等性質，例如：注腳就是一種簡單的超連結，讓讀者的眼睛可以從頁面的某一處，跳到另一處，或是從篇章的某一頁跳到另一頁（例如，注腳解釋是列於書末時）。不過注腳對傳統書寫語言，不是那麼重要；有很多篇章一則注腳也沒有。相較之下，網路沒有超連結，就無法運作了。

最後，電子郵件、即時訊息、聊天社群的互動，因為必須迅速溝通，所以不像大部分書寫有細心規畫及精心的結構安排。有些人傳送訊息時完全不經修潤，不管是不是有打錯字、不規則大小寫、缺乏標點符號或有其他不合規則的做法。不過這些做法的影響其實不大，很少會妨礙理解。這種特殊風格顯然是因為該媒介使用者有必要快速回應的壓力，也因為使用者想要標新立異、大膽嘗試的欲望（尤其是較年輕，或者心態較年輕的使用者）。

整體而言，電腦輔助溝通應視為接近言語的書寫語言，而不是寫下來的口述語言。……電腦輔助溝通既不是言語，也不是書寫，而是視情況選取兩者的特質。但它也有上述兩種媒介都沒有的做法，成為我們訊息管理的新課題。

三、評述作文（36％）

請閱讀下列文章後，以〈高學歷現象的省思〉為題，寫一篇 4 段以上的議論文。行文時，須兼評述下文的數據或現象。

內政部公布最新統計，去年大學學歷人口突破五百萬大關，占近四分之一總人口，其中廿至廿四歲族群七成是大學生，大家愈讀愈高，近五年具研究所學歷者也增加卅萬人。……

在少子化及學歷貶值效應情形下，大家愈讀愈高，近十年來研究所學歷人口也自三・一一％倍增至六・四％，民國九十四年當時五十七萬

人有研究所學歷，一○○年一百零一萬人，去年底上探至一百卅萬人，近五年共增加卅萬人。……

在大家往更高學歷努力下，臺灣高等教育比率與國際比較毫不遜色，民國一○三年廿五至六十四歲人口受高等教育比率四十五％，高於經濟合作暨發展組織(OECD)各國平均卅三％。

再與其他 OECD 主要國家比較，臺灣除低於加拿大五十四％、以色列四十九％，與韓國四十五％及美國四十四％相當外，均高於其餘國家。

（《臺灣新生報》20160313〈大學學歷者去年破五百萬〉）

國立臺中教育大學 105 學年度教師專業碩士學位學程招生考試

教育學試題

一、長期以來，教育工作者努力追尋「因材施教」、「有教無類」目標的達成，而「適性揚才」也是十二年國民基本教育課程總綱所揭示的重要理念。請問，學校教師如何落實適性教育的理念？請說明應掌握的基本原則與實踐的具體做法。（25％）

二、近年來在教育部政策推動下，各縣市積極擬定中小學教師專業學習社群實施計畫。請問「教師專業學習社群」的意義與特徵為何？（15％）學校推展「教師專業學習社群」的可行策略為何？（10％）

三、要對學生學習進行有效的考查，一份優良的試題是不可或缺的條件，要確保試題品質優良就必須進行試題的分析。請說明試題分析的功能？（5％）試題要如何進行邏輯審查，以確保試題具有內容效度？（8％）要如何進行難度、鑑別度、選項誘答力分析，以確保試題能區分學生不同的程度，達到評量應有的功能？（12％）

四、請說明練習教學法之步驟及其內涵為何？（15％）其所運用史金納(Skinner)（5％）、桑代克(Thorndike)（5％）之教學原理或原則各為何？請說明其理由。

國立臺中教育大學 105 學年度教師專業碩士學位學程招生考試

數學試題

一、填充題（80%，每格5%）

1、將二次函數$y = ax^2 + c$的圖形向上平移3個單位，再向左平移2個單位，

可得新圖形的二次函數為$y = 3x^2 + 12x + 20$，則$c =$_____。

2、已知某個二位正整數的十位數字是3，若此數的平方比此數30倍多259，

則此數為_____。

3、若我們發現下列結果：

$1 + 8 = 9$；

$1 + 8 + 27 = 36$；

$1 + 8 + 27 + 64 = 100$；

$1 + 8 + 27 + 64 + 125 = 225 \cdots\cdots$

根據上述規則，試算$\sqrt{1+8+27+\cdots+8000}$之值為_____。

4、某球隊每位成員與其餘每一個人都握手1次，若他們總共握手了55次，則

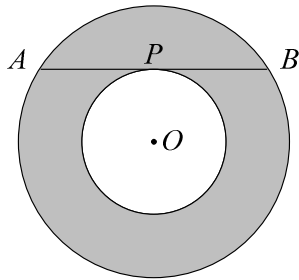這球隊總計有_____人。

5、已知多項式$7(x-1)^2 + 4(x-1)(y+2) - 20(y+2)^2$可因式分解為

$(ax + by + c)(dx + ey + 3)$，則$a + d =$_____。

6、求滿足除以3餘2、除以5餘3、除以7餘2的最小正整數為_____。

7、下圖為兩個同心圓，$\overline{AB}$切小圓於P點，已知$\overline{AB}$的長為16公分，則灰色面

積為_____平方公分。

8、擲兩個公正骰子，假設第一個骰子擲得a點，第二個骰子擲得b點，則聯

立方程組 $\begin{cases} ax + by = 2 \\ 2x + y = 7 \end{cases}$ 恰有一組解的機率為_____。

9、若二次方程式$x^2 - 5x + 2 = 0$的二根為$\log a$、$\log b$，則$\log_a b + \log_b a =$

_____。

10、若$\log 5 \doteqdot 0.699$，試問2^{30}是幾位數？_____

11、空間中有一$P(1, -2, 3)$點與直線$L: \frac{x-2}{1} = \frac{y+1}{2} = \frac{z+3}{2}$，則點$P$至直線$L$的垂

足座標為_____。

12、若多項式A除以$x - 1$之餘式為5，除以$x + 2$之餘式為2，則多項式A除以

$(x - 1)(x + 2)$之餘式為_____。

13、座標平面上點(a, b)在直線$3x + 5y = -62$上，且$a : b = 2 : 5$，則

$(b - 2) : (a + 3)$的比值為_____。

14、已知一三角形的三邊長分別為$\sqrt{13}$、$\sqrt{20}$、$\sqrt{29}$，則此三角形面積為_____

平方單位。

15、已知$11^x = 8$且$176^y = 32$，則$\dfrac{3}{x} - \dfrac{5}{y} =$＿＿＿＿。

16、設$\pi < \alpha < \dfrac{3\pi}{2}$、$\dfrac{\pi}{2} < \beta < \pi$，且$\sin \alpha = -\dfrac{4}{5}$、$\sin \beta = \dfrac{12}{13}$，則$\sin(\alpha + \beta) =$

＿＿＿＿。

二、計算證明題（20％，請務必寫出計算或證明過程與結果）

1、設$\{a_n\}_{n=1}^{\infty}$為一等差數列且$S_n = a_1 + a_2 + \cdots + a_n$為此等差數列前$n$項的和，

試證：$S_n,\ S_{2n} - S_n,\ S_{3n} - S_{2n}$成等差數列。（10％）

2、設F為拋物線$(y - 3)^2 = 16(x - 1)$的焦點，若點P在拋物線上且$\overline{PF} = 11$，

試求P的座標。（10％）