

作答說明

1. 本測驗共 3 大部份，共 50 題，每題 2 分。
2. 請將答案填寫在答案卷上，未依規定填寫在答案卷上，一律不計分。
3. 測驗完成後，答案卷需連同題目卷一併繳交。

Part 1: Cloze (每題 2 分)

Most companies carry out surveys to find out what customers or potential customers feel about their products and services. I answered one recently about online shopping. I personally (1)_____ prefer to go shopping on the high street rather than to shop on the Internet. You get a much better impression of whether something is good (2)_____ for money or truly fit for purpose when you can touch it. And I feel if you have a problem (3)_____ a purchase, it's easier to go back and make a complaint if you've bought something from a shop. But shopping online has its advantages, and many companies offer you a discount when you (4)_____ an order online. And, of course, lots of online companies have plenty of (5)_____ customers and plenty of satisfied customers.

- | | | | | |
|----|------------|--------------|-------------|------------------|
| 1. | (A) much | (B) very | (C) high | (D) far |
| 2. | (A) rate | (B) charge | (C) cost | (D) value |
| 3. | (A) on | (B) with | (C) for | (D) in |
| 4. | (A) set | (B) leave | (C) place | (D) locate |
| 5. | (A) normal | (B) ordinary | (C) regular | (D) conventional |

Online shippers have grown accustomed to being tracked by digital advertisements for products that interest them. While the technique, called personalized re-targeting, is not new, it is more (6)_____ with companies like Google and Microsoft have entered the field. And it has (7)_____ a precision that is leaving consumers with the feeling that they are being watched as they roam online stores. In the digital advertising business, this form of marketing is regarded as a breakthrough, (8)_____ consumers the right ad at the right time. But the technique is bringing (9)_____ of industry regulation. Consumers may be frightened because they may feel that they are being (10)_____ as they browse the Web.

- | | | | | |
|-----|---------------|---------------|----------------|------------------|
| 6. | (A) pervasive | (B) invasive | (C) persistent | (D) preservative |
| 7. | (A) conquered | (B) contacted | (C) reached | (D) realized |
| 8. | (A) to show | (B) show | (C) shown | (D) showing |
| 9. | (A) panic | (B) caution | (C) horror | (D) threat |
| 10. | (A) tagged | (B) labeled | (C) trailed | (D) tracked |

Marie was surprised but happy to take a job on a local newspaper as soon as she left university. She was surprised because she didn't feel that she (11)_____ the job description, but she was happy because she had always dreamed of working as a (12)_____ who can enjoy writing news and feature stories. So she didn't really mind when she found that she was spending much of her time (13)_____ errands for the editor. Her sister said she was just being used as sweat labor but she felt confident that there was good (14)_____ for her there. She was sure she would soon have the chance to take on more (15)_____.

- | | | | | |
|-----|-----------------|--------------------|-----------------|-----------------|
| 11. | (A) fit | (B) make | (C) compose | (D) create |
| 12. | (A) critic | (B) copywriter | (C) proofreader | (D) journalist |
| 13. | (A) running | (B) to run | (C) ran | (D) run |
| 14. | (A) respect | (B) prospect | (C) aspect | (D) perspective |
| 15. | (A) reliability | (B) responsibility | (C) function | (D) obligation |

The Charles Park Corporations have announced record profits for last year (16)_____ a slight decline in demand for one of their key products, (17)_____ by increasingly fierce competition in the sector. They say they are already well (18)_____ the way to meeting their targets for the first quarter. Their new models will go into (19)_____ in the spring and this is expected to (20)_____ their sales and profits even more.

- | | | | | |
|-----|----------------|--------------|--------------|---------------|
| 16. | (A) despite | (B) although | (C) even | (D) while |
| 17. | (A) cause | (B) causing | (C) to cause | (D) caused |
| 18. | (A) to | (B) by | (C) on | (D) in |
| 19. | (A) production | (B) creation | (C) device | (D) discovery |
| 20. | (A) progress | (B) boost | (C) evolve | (D) proceed |

Part 2: Sentence structure (每題2分)

作答說明：請選擇該句最適合的句型。

21. If a man does his best, what else is there?
(A) simple (B) compound (C) complex (D) compound-complex
22. You raise me up, so I can stand on mountains.
(A) simple (B) compound (C) complex (D) compound-complex
23. Some cause happiness wherever they go; others, whenever they go.
(A) simple (B) compound (C) complex (D) compound-complex
24. How wrong it is for a woman to expect the man to build the world she wants, rather than to create it herself.
(A) simple (B) compound (C) complex (D) compound-complex
25. We didn't lose the game; we just ran out of time.
(A) simple (B) compound (C) complex (D) compound-complex
26. Never interrupt your enemy when he is making a mistake.
(A) simple (B) compound (C) complex (D) compound-complex
27. Good people do not need laws to tell them to act responsibly, while bad people will find a way around the laws.
(A) simple (B) compound (C) complex (D) compound-complex
28. Nothing in the world is more dangerous than sincere ignorance and conscientious stupidity.
(A) simple (B) compound (C) complex (D) compound-complex
29. Don't stay in bed, unless you can make money in bed.
(A) simple (B) compound (C) complex (D) compound-complex
30. Each problem that I solved became a rule which served afterwards to solve other problems.
(A) simple (B) compound (C) complex (D) compound-complex
31. The full use of your powers is along lines of excellence.
(A) simple (B) compound (C) complex (D) compound-complex
32. The artist is nothing without the gift, but the gift is nothing without work.
(A) simple (B) compound (C) complex (D) compound-complex
33. You may not be interested in war, but war is interested in you.
(A) simple (B) compound (C) complex (D) compound-complex
34. People demand freedom of speech to make up for the freedom of thought which they avoid.
(A) simple (B) compound (C) complex (D) compound-complex
35. You can avoid reality, but you cannot avoid the consequences of avoiding reality.
(A) simple (B) compound (C) complex (D) compound-complex

Part 3: Vocabulary (每題2分)

36. Recent research suggests that Richard's theory of economic development is _____.
(A) injured (B) spoiled (C) flawed (D) damaged
37. She detected a slight _____ in his last e-mail. He might have second thoughts.
(A) waive (B) spam (C) damage (D) hesitation
38. Peter is an economist who believes in the advantages of _____ competition, not fierce competition.
(A) fertile (B) affluent (C) healthy (D) prosperous
39. The company aims to maintain quality and _____ the interests of the shareholders and at the same time to satisfy the demands of its target market.
(A) promote (B) approve (C) distinguish (D) grasp
40. Although others were also responsible for the problem, Jenny decided to _____ the blame.
(A) limb (B) head (C) shoulder (D) hand
41. Tim is lucky to have overseas experience which is much more useful than working in one's home town a choice; a lot of people stay at home because they have no _____.
(A) collection (B) range (C) option (D) variety
42. I _____ want to see the world; I'll take any job if it means I can travel.
(A) barely (B) desperately (C) deliberately (D) adequately
43. Unemployment usually goes _____ with social unrest.
(A) all ears (B) eye to eye (C) hand in hand (D) teeth for teeth
44. Fully accepting the fact that different learners find different methods useful, Jim makes the _____ that motivation is the key factor in most learners' success.
(A) proof (B) point (C) encounter (D) persuasion
45. I believe Ben should apologize for his _____ remarks in the meeting.
(A) offensive (B) protective (C) exhaustive (D) defensive
46. The hotel _____ all responsibility for guests' vehicles and luggage.
(A) displays (B) disclaims (C) discounts (D) discharges
47. Jane has a(n) _____ for detail, so ask her to check the report.
(A) hand (B) nose (C) ear (D) eye
48. Don't judge Pam too _____. She really couldn't have done things smartly.
(A) harshly (B) acutely (C) vigorously (D) intensely
49. The famous pop singer has tried to _____ all the rumors about his retirement.
(A) decline (B) claim (C) declare (D) deny
50. There is _____ concern across the world about climate change.
(A) arising (B) raising (C) rising (D) mounting

一、選擇題：(請為各題選出最適當的答案)(45%)

1. 下列哪一句不是描寫夏季？(1) 晝長吟罷蟬鳴樹、(2) 瑤琴一曲來薰風、(3) 夜深燼落螢入帷、(4) 吹面不寒楊柳風。
2. 「薏苡明珠」是：(1) 比喻誣陷他人納賄、(2) 比喻最美好的藝術品、(3) 比喻人行事隱匿，說話不實、(4) 讚揚積德流芳。
3. 以下那一句成語是用以比喻徒具虛名卻無實際用途：(1) 南腔北調、(2) 南金東箭、(3) 南箕北斗、(4) 南極星輝。
4. 形容有話必欲一吐為快，我們說：(1) 骨梗在喉、(2) 骨鯁在喉、(3) 骨鯁在喉、(4) 骨哽在喉。
5. 世稱李賀為「鬼才詩人」，是因為其詩具有「幽冷奇駭」的風格，請你據此風格判選下面那一組詩句，乃出自李賀的手筆：(1) 春盡燕山雪尚飛，故鄉雖好不思歸。(2) 塞上胭脂凝夜紫，嗷嗷鬼母秋郊哭。(3) 裁成合歡扇，團團似明月。(4) 相逢仍臥病，欲語淚先垂。
6. 《詩經》云：「昔我往矣，楊柳依依；今我來思，雨雪霏霏」，運用了什麼修辭法：(1) 轉化、(2) 映襯、(3) 層遞、(4) 類疊。
7. 下面那組詩句，用了倒裝法：(1) 候騎出蕭關，追兵赴馬邑。(2) 聽蟬蟬響急，思卿卿別情。(3) 竹喧歸浣女，蓮動下漁舟。(4) 人閒桂花落，夜靜春山空。
8. 以下是朱自清先生說過的一段話：「有一天，我和一位新同事閒談，我偶然問道：『你第一次上課，講些什麼？』他笑著回答：『我古今中外了一個小時』。」請問劃線的句子，採用了什麼修辭法？(1) 夸飾、(2) 譬喻、(3) 轉品、(4) 象徵。
9. 「也許銅的要綠成翡翠／鐵罐上鏽出幾瓣桃花／再讓油膩織一層羅綺／徽茵給他蒸出些雲霞。」這是民國初年聞一多的新詩，以下那個詩題，最貼近上述詩句的意象經營：(1) 棄婦、(2) 葬禮、(3) 雨巷、(4) 死水。
10. 「戀人之□／黑而且美／十一月，獅子座的流星雨」。這是詩人紀弦的一首情詩，請循意象營造的線索，判選□中的字，最有可能是下列那一個？(1) 脣、(2) 目、(3) 髮、(4) 脣。
11. 「關關雎鳩，在河之洲；窈窕淑女，君子好逑」，「逑」指：(1) 追求、(2) 匹配、(3) 思慕。
12. 要保持心情平靜，請勿聽□□之音，請選擇適當的語詞填入□□：(1) 靡靡、(2) 靡靡、(3) 靡靡、(4) 靡靡。
13. 下列語詞中的字，聲母和其他三者不同的是(1)「膾」炙人口、(2)「繪」聲「繪」影、(3) 衣著「華」麗、(4)「殼」棘不已。
14. 「你想證明他沒有作弊，就應該拿出證據，□□□□，沒有人會相信。」以上的空格應填入下列那個語詞？(1) 信誓旦旦、(2) 空口無憑、(3) 白紙黑字、(4) 口若懸河。
15. 《洛神賦》有句曰：「明眸善睐，鬋輔承權」，請問「鬋輔」所指為何？

國立中正大學100學年度學士班二年級轉學生招生考試試題
共同科目：國文

第4節

第2頁，共2頁

(1) 黑誌、(2)愁容、(3)微笑、(4)酒窩。

二、改錯題：請挑出句子中的錯字，並改正之。(例如：精一經)(15%)

1. 在現代詩史中，鄭愁予是少數能繼成中國古典詩抒情傳統，繼而發揚光大的詩人之一。
2. 呼籲國人注重夏令衛生，不要成為傳播病毒的徽介。
3. 這段刻骨明心的愛情故事，歷經千載瀾新。
4. 娛樂圈有不雕的偶像，猶如常青樹般訖立不搖。
5. 不要妄自飛薄，也不要輕信背諾，更不可歸疚他人。

三、作文：(40%)

近年來，大學畢業生數量持續增加，大學「畢業即失業」的現象也日益嚴重。當大學不再是人生道路上的工作保證，甚至所讀科系與未來就業的關連性也越來越小的時候，你選擇報考中正大學的某一學系，對你而言的意義何在？請以「轉學考試與我」為題，撰寫五百字左右的短文。

國立中正大學100學年度學士班二年級轉學生招生考試試題

數學系、地球與環境科學系、物理學系

學系別：資訊工程學系、電機工程學系、機械工程學系

科目：微積分

化學工程學系、通訊工程學系

第 1 節

第 1 頁，共 2 頁

一、填空题(每個空格 7 分, 共 35 分)

1. Find the limit: $\lim_{x \rightarrow 0^+} (1 + 3x)^{\csc x} = \underline{\hspace{2cm}}$

2. Evaluate the integral: $\int \frac{dt}{t^{1/2} + t^{3/2}} = \underline{\hspace{2cm}}$

3. Find the volume of the solid bounded by the cylinders $x^2 + y^2 = 1$ and $x^2 + y^2 = 4$ and the plane $z = 0$ and $z = 3x + y$. $\underline{\hspace{2cm}}$

4. Apply the Green's theorem to find the area of the region enclosed by the curve:
 $\mathbf{r}(t) = (\cos^3 t)\mathbf{i} + (\sin^3 t)\mathbf{j}$, $0 \leq t \leq 2\pi$. $\underline{\hspace{2cm}}$

5. Find the surface integral $\iint_S y dS$, where S is the surface $x - y^2 - z = 0$,
 $0 \leq y \leq 2$, $0 \leq z \leq 1$. $\underline{\hspace{2cm}}$

二、複選題(每題 7 分, 共 35 分. 請注意: 每題至少有一個或者一個以上正確答案, 答案完全正確得 7 分, 否則得 0 分).

1. Consider the graph of the function $f(x) = \frac{x^2 - x - 2}{x - 3}$. Which of the following must be true?

(A) There is a vertical asymptote at $x = 3$. (B) $f(5)$ is a relative minimum.

(C) $f(1)$ is a relative minimum. (D) The graph does not have any inflection point.

2. Which of the following must be true?

(A) The power series $\sum_{k=1}^{\infty} \frac{x^{2k-1}}{(2k-1)}$ has radius of convergence $r = 1$.

(B) The interval of convergence of the series $\sum_{k=1}^{\infty} \frac{(x-1)^{2k-1}}{(2k-1)}$ is $(0, 2]$.

(C) The power series $\sum_{k=0}^{\infty} \frac{(-1)^k}{(2k)!} x^{2k}$ converges for all $x \in \mathbb{R}$.

(D) The power series $\sum_{k=0}^{\infty} n^n x^n$ diverges for all $x \in \mathbb{R}$.

國立中正大學100學年度學士班二年級轉學生招生考試試題

數學系、地球與環境科學系、物理學系

學系別：資訊工程學系、電機工程學系、機械工程學系

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第 1 節

第 2 頁，共 2 頁

3. Which of the following must be true?

(A) The sequence $\{\frac{n}{e^n}\}$ decreases for $n \geq e$. (B) The series $\sum_{k=1}^{\infty} \frac{(-1)^k}{k!}$ converges absolutely.

(C) The series $\sum_{k=1}^{\infty} \frac{\cos(k\pi)}{k}$ converges conditionally. (D) The series $\sum_{k=1}^{\infty} \frac{1}{k \cdot \ln k}$ diverges.

4. Set $f(x, y) = \begin{cases} \frac{3x^2}{x^2 + y^2}, & (x, y) \neq (0, 0), \\ 0, & (x, y) = (0, 0). \end{cases}$ Which of the following must be true?

(A) $\lim_{(x,y) \rightarrow (0,0)} f(x, y)$ does not exist. (B) $\lim_{(x,y) \rightarrow (0,0)} f(x, y) = 0$.

(C) $f_x(0, 0)$ does not exist. (D) $f_y(0, 0) = 0$.

5. Let k be a constant and consider the function $f(x, y) = x^2 - kxy + y^2$. Which of the following must be true?

(A) $\nabla f(0, 0) = \vec{0}$ for any k . (B) f has local maximum at $(0, 0)$ if $k = 0$.

(C) f has local minimum at $(0, 0)$ if $k = 1$. (D) f has saddle point at $(0, 0)$ if $k = 3$.

三、計算題(30 分, 這部分必須有計算過程, 僅有答案而沒有計算過程得 0 分)

1. (10 分) Sketch the region Ω bounded by the x -axis, y -axis and the function

$$f(x) = \begin{cases} \frac{\sin x}{x}, & 0 < x \leq \pi, \\ 1, & x = 0. \end{cases}$$

Find the volume of the solid generated by revolving the region Ω about the y -axis.

2. (3+7=10分) Evaluate $\iint_{\Omega} \left(\frac{x^2 - xy + y^2}{2}\right) dA$ where Ω is the region enclosed by the ellipse

$$x^2 - xy + y^2 = 2 \text{ and using the transformation } \begin{cases} x = \sqrt{2}u - \sqrt{2/3}v, \\ y = \sqrt{2}u + \sqrt{2/3}v. \end{cases}$$

3. (10分) Evaluate $\int_C \vec{F} \cdot d\vec{r}$, where $\vec{F} = z^2\mathbf{i} + y^2\mathbf{j} + x\mathbf{k}$ and C is the triangle with vertices $(1, 0, 0)$, $(0, 1, 0)$ and $(0, 0, 1)$.

1. (20 points) Write the English definition for each item at the following glossary table.

Item	English Definition
Algorithm	
Byte	
Compiler	
Mainframe	
Operating System	

2. (10 Points) Computer system is made of different components that work together to perform various functions to complete tasks. List five computer hardware components and draw a picture with 100 English words to illustrate how they interact.

3. (10 points) Many number base (radix) systems exist. Fill out the following table to convert the number to and from other numeral systems.

Decimal	Binary	Octal	Hexadecimal
101			65
5	101		
		101	
			101

4. (10 points) The C programming language offers a library function called *strcpy*, defined in the `string.h` header file, which allows null-terminated memory blocks to be copied from one location to another. The prototype of the function is the following:

```
char *strcpy(char *destination, const char *source);
```

Write a your own C program to implement function *strcpy*.

5. (10 points) Rewrite the program segment that follows using a “do-while” loop.

```
01 count = 0;
02 i = 0;
03 while (i < n) {
04     scanf("%d", &x);
05     if (x == i)
06         ++count;
07     ++i;
08 }
```

6. (10 points) a. Trace the following program and print the output of the program.

```
01 #include <stdio.h>
02 void main() {
03     int i, j;
04     for (i = 1; i < 10; i = i + 2) {
05         for (j = i; j < 10; j = j + 3) {
06             printf(" i = %d and j = %d \n", i, j);
07         }
08     }
09     printf ("the end of program\n");
10 }
```

- (10 points) b. Print the program output if we change Line 4 statement as the following:

```
for (i = 1; i < 10; i = i + 2); {
```

7. (20 points) Write a C program that takes a string from the user input, converts it into upper case, and finally prints it on the screen. To validate your program, you may use the following sample data as the test input. The example of your program output is listed as follows:

```
Please input your string:
Transformer
The output of this program is:
TRANSFORMER
```