

中央警察大學 105 學年度碩士班入學考試試題

所 別：各所
科 目：國文

警察特考補習班 高見公職

專辦：

消防特考、警察特考、一般警察特考、警大研究所、警大二技考試、
警專考試、警佐、消佐、警察升官等考試

LINE帳號：godtrain

連絡電話：07-2233812

聯絡地址：高雄市新興區中正二路222號3樓之2

作答注意事項：

- 1.本試題共 2 大題，每大題各占 50 分。
- 2.不用抄題，可不按題目次序作答，但應書寫題號。
- 3.禁用鉛筆作答，違者不予計分。
- 4.請以橫式書寫作答。

壹、解釋下列詞句之義：(每小題 10 分，共 50 分)

- 一、吾所以有大患者，為吾有身；及吾無身，有何患？(《老子·第十三章》)
- 二、為天下及國，莫如以德，莫如行義。以德以義，不賞而民勸，不罰而邪止，此神農、黃帝之政也。(《呂氏春秋·上德》)
- 三、事在四方，要在中央。聖人執要，四方來效。(《韓非子·揚權》)
- 四、凡戰者，以正合，以奇勝。故善出奇者，無窮如天地，不竭如江海。(《孫子兵法·勢篇》)
- 五、群臣陳其言，君以其言授其事，事以責其功。功當其事，事當其言則賞；功不當其事，事不當其言則誅。(《韓非子·二柄》)

貳、論文：50 分

顧炎武〈與友人論學書〉：「愚所謂聖人之道者如之何？曰：『博學於文』，曰：『行己有恥』。自一身以至於天下國家，皆學之事也；自子臣、弟友，以至出入、往來、辭受、取與之間，皆有恥之事也。恥之於人大矣。」請參酌前引古文之思想，以「現代警察的知識涵養與道德操守」為題，書寫論文一篇。

中央警察大學 105 學年度碩士班入學考試試題

所 別：各所
科 目：英文

警察特考補習班 高見公職

專辦：

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一、 Vocabulary and Phrases：(20 分)

1.digital evidence

2.informant

3.INTERPOL

4.polygraph

5.in the line of duty

6.The violence outside the city hall _____ soon after the police force put down the riot.

(A) expired (B) subsided (C) redirected (D) instilled

7.The police _____ the whole area after fires were discovered in the high-rise building.

(A) cordoned off (B) congested with
(C) posted to (D) emancipated from

8.The accused _____ against the death sentence to the Supreme Court.

(A) adhered (B) accommodated (C) adjusted (D) appealed

9. _____ is a person who is involved with another in the commission of a crime whether as a principal or as an accessory.

- (A) Escort (B) Accomplice (C) Abettor (D) Informant

10. He gave a _____ to the police telling them how he killed his wife.

- (A) commitment (B) narrator
(C) commandment (D) confession

二、 Translation : (30 分)

(一) 中翻英 (10 分)

在全球化趨勢下，犯罪國際化日益嚴重。因此，「打擊跨國犯罪」已是全球警政的核心。我國亦積極與各國執法機關建立情報合作管道，蒐集運輸販毒、國際詐欺、恐怖活動、人口販運、武器走私、駭客入侵，網路洗錢等犯罪情資，期能掃蕩不法，使跨國犯罪無所遁形，民眾免於被害。

(二) 英翻中 (20 分)

1. The treatment to be given the offender cannot alter the fact of the offense, but we can take measures to reduce the chance of similar acts occurring in the future. We should banish the criminal, not in order to exact revenge nor directly to encourage reform, but to deter that person and others from further illegal attacks on society.

2. A police officer is permitted to use the amount of force necessary only to overcome the resistance or aggression that is presented by the subject. When the resistance or aggression is reduced, the officer must reduce his or her force correspondingly.

三、 Reading Comprehension : (20 分)

(一) 請依下文回答第 1 題至第 5 題

Marco Polo literally changed the Western view of the world. European maps in his time were 1 on Biblical interpretations and classical mythology. Jerusalem was at the center. At the margins the map-makers drew monsters and savages, because there, 2 the Christian center, Nature herself was believed

to be monstrous. Then 3 Polo's book *Travels*, describing great civilizations in the East, and a world not centered on Jerusalem, politically or geographically. This recasting of the world into a more dynamic and multi-centered geographical space was the first step toward 4 we now call globalization. *Travels* appeared in popular anthologies circulating in Europe in the 15th and 16th centuries. Christopher Columbus had an early copy, and made notes in the margins. He later 5 America while searching out a western route to Polo's Cathay.

1. (A) based (B) place (C) situated (D) supported
2. (A) in the vicinity of (B) far from
 (C) in lieu of (D) close to
3. (A) came (B) existed (C) lied (D) stood
4. (A) which (B) what (C) that (D) where
5. (A) jumped into (B) took after
 (C) bungled into (D) diverged from

(二) 請依下文回答第 6 題至第 10 題

In recent years, issues of public and personal safety have become a major concern to many people around the world. Violent incidents in fast food restaurants, parking lots, hospitals, schools and colleges, and shopping malls have led many to seek greater security inside their homes and in many public buildings and areas as well. Sales of burglar alarms, motion detectors, and closed circuit television systems (CCTV) have skyrocketed since 2000. Convenience stores, gas stations, jewelry stores, and even the postal service have barricaded their staffs behind safety glass enclosures and focus cameras on many work stations that involve handling money. Communities employ private security forces and encourage homeowners to install alarm systems and other security devices. While some people sympathize with the reasons behind these efforts, others have voiced concern that these measures are helping to create a siege mentality. There is fear that such a mentality will lead to a general distrust of others among people that could foster a dangerous isolation within neighborhoods and among neighbors.

- 6.The passage suggests which of the following about community security?
- (A) Communities are more dangerous today than they were before the year 2000.
- (B) Too much concern for security could destroy trust among neighbors.
- (C) Poor security has led to an increase in public violence.
- (D) Isolated neighborhoods are unsafe neighborhoods.
- 7.The word *foster* in the last sentence most nearly means
- (A) adopt (B) encourage (C) prevent (D) secure
- 8.The author believes that
- (A) More security is needed to make neighborhoods safer.
- (B) People should spend more on home security.
- (C) People should not ignore the problems created by excessively safety concerns.
- (D) Security devices are the best protection against violent crime.
- 9.According to the author, security devices have skyrocketed since 2000. What does it mean?
- (A) People like to live a life full of variety of security devices.
- (B) The need of security devices has dramatically increased among people.
- (C) The prices of security devices are on the increase.
- (D) Security devices have changed a lot since 2000.
- 10.In the second last sentence, the phrase *siege mentality* means
- (A) hostility (B) defensiveness (C) fear (D) corruption

四、Essay : (30 分)

Write an essay on the topic : **Police Visibility**

Do you agree or disagree with the following statement ?

Increasing police visibility is a good policy to better public security.

Use specific reasons and examples to support your opinion.

中央警察大學 105 學年度碩士班入學考試試題

所 別：消防科學研究所

科 目：火災科學

作答注意事項：

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3. 禁用鉛筆作答，違者不予計分。
4. 不需使用計算機，可用中文答題。

一、請回答下列問題：

- (一) 請說明煙囪效應與溝渠（壕溝）效應的差異。(12 分)
- (二) 請推導煙囪效應所造成的壓差。(13 分)

二、請回答下列問題：

- (一) 請藉由物質的比熱、密度、熱傳導係數，說明熱慣量(thermal inertia)?
熱擴散係數(thermal diffusivity)? (12 分)
- (二) 請推導熱薄性(thermally thin)物件，其溫度隨時間變化的方程式：

$$T = T_{\infty} + (T_0 - T_{\infty}) \cdot e^{\left(-\frac{Ah}{mc}t\right)}$$
，其中 T 為物件溫度， T_{∞} 為熱氣流溫度， T_0 為物件初始溫度， A 、 m 、 c ，分別為物件表面積、質量、比熱， h 為對流傳熱係數， t 為物件受熱時間。(13 分)

三、請回答下列問題：

- (一) Find the eigenvalues and the eigenfunctions. $y'' + \lambda y = 0$; $y(-3\pi) = y(3\pi)$,
 $y'(-3\pi) = y'(3\pi)$. (10 分)
- (二) Let $f(x) = e^{2x}$ for $0 \leq x \leq 1$, find the Fourier cosine series and Fourier sine series for $f(x)$ on the interval. (15 分)

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四、對單一開口的室內火災燃燒時，在假設：室內空氣完全混合，熱空氣及冷空氣分別由開口中性帶上、下方流出與流入，且氣體進入與流出皆由浮力所造成，流入與流出氣體間相互作用力不計等條件下。請利用伯努利方程式(Bernoulli equation)，依序推導求出：(25 分)

- (一) 熱空氣流出速度
- (二) 冷空氣流入速度
- (三) 流出室外的空氣質量流率
- (四) 流入室內的空氣質量流率

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所 別：消防科學研究所
科 目：消防安全設備與檢查

作答注意事項：

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- 一、為預防二氧化碳滅火設備於檢修過程設備機件發生誤動作或因檢修人員於檢修過程疏忽產生工安危害，故不管區劃空間或設備構件之外觀、性能或綜合測試，宜有一標準作業程序。請針對該設備高壓全區域放射方式，分就高壓啟動用氣體容器系統與電磁閥啟動系統繪圖說明檢修步驟。
- 二、近年來大量體建築物愈來愈多，這些建築物多依法設置防災中心，試就執行消防第二種檢查時，針對防災中心檢查之項目，說明防災中心應設置防災監控系統，其能監控或操作之消防安全設備有哪些？實務上，除前述設備外，因涉建築防火安全，亦經常納入監控的項目又有哪些？
- 三、開刀房、ICU 病房、呼吸照護病房等醫療作業空間，是否應設置自動滅火設備？上述空間其初期滅火需求的法定消防設備，以何種為宜？試申論說明之。
- 四、試說明俗稱常開式防火門或自動防火門設置之合法性？如要採用此類型防火門，則設於建築物內部何種空間，較符合需求？

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所 別：消防科學研究所

科 目：消防實務

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- 一、由於閃爆燃很容易造成消防人員之傷亡，而閃燃與爆燃有各種定義，試以燃燒範圍來說明閃燃與爆燃現象？若你為火災現場之指揮人員，依此界定應如何作為，以避免閃燃或爆燃之發生，確保消防人員之安全？
- 二、某一火場懷疑有可能是使用乙炔切焊，因其切焊之焊渣掉落不慎所造成，若你為消防火調人員，請問其調查要領為何？試詳述之。
- 三、各級消防機關基於證物鑑定工作需要，得依循國際或國內相關之實驗室管理規範成立火災證物鑑定實驗室，試述實驗室人員之設置及實驗室人員之技術能力有哪些要求？又實驗室採用之鑑定方法應該有哪些確效之作為？
- 四、建築物起火後火勢燃燒猛烈，無法立即有效控制，此時應採取阻隔延燒策略，儘可能侷限火勢，避免擴大延燒。試述阻隔延燒的原則與方式？又火場火勢若已大致控制，後續仍須進行殘火處理，為避免影響後續消防工作的相關作為，殘火處理作為的處理要領為何？

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