

中央警察大學 107 學年度碩士班入學考試試題

所 別：各所

科 目：英文

作答注意事項：

1. 本試題共 4 大題；共 4 頁。
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。

一、 Vocabulary and Phrases : (20 分)

Qs 1-5 :

1. The police developed as a mechanism to do justice by apprehending offenders and holding them _____.
(A)admirable (B)accountable (C)appreciable (D)affluent
2. Since their primary practical goal was to reduce crime _____, police long believed that they were in the business of crime prevention.
(A)ventilation (B)vicinity (C)victimization (D)viscosity
3. Efforts to concentrate police enforcement efforts in high-risk places, commonly known as hot spot policing, have been found to be _____ in controlling crime.
(A)effective (B)edible (C)enclose (D)excavate
4. Police responses to crime problems can be greatly _____ by securing productive partnerships with community members.
(A)emigrated (B)enigma (C)estate (D)enhanced
5. A police focus on controlling disorder has been hypothesized to be an important way to reduce more serious crimes in _____.
(A)nerves (B)neighborhoods (C)narratives (D)nomads

Qs 6-10 : Fill in each of the blanks with a proper word to make the statement complete.

The initial and final letters of the word are given as hints.

6. The procedure for the surrender of an alleged criminal by one state to another having j_____n to try the charge is called extradition.
7. Preventive d_____n allows the judges to imprison anyone who they have good reason to believe may commit a further crime.
8. If a person is convicted of robbery and sentenced to eight years in prison, he or she will be put behind b_____s and serve the jail term.
9. The study clearly demonstrates the link between child abuse and juvenile d_____y.
10. A voluntary confession is a confession that is given out of a suspect's own free will, and has not been obtained by force, coercion, or i_____n.

二、 Translation : (30 分)

Translate the following short passages from Chinese to English or the other way around.

1. 舉凡酒駕的稽查取締、陳抗事件的處置因應、非法槍彈及毒品的查緝防制、跨國詐欺犯罪的打擊遏阻、乃至網路科技犯罪的偵防情蒐等，均為國人關切的治安議題。
2. Law enforcement agencies should establish a culture of transparency and accountability in order to build public trust and legitimacy. This will help ensure decision making is understood and in accord with stated policy.

三、 Reading Comprehension : (20 分)

Qs 1-5 :

1. When a defendant claims that the presence of blood sprinkles on his clothing is due to the fact that he has touched such clothing with bloody hands, one can immediately conclude that he is lying.

The fact upon which this conclusion is based is *most nearly* that

- (A) nothing absorbs blood.
- (B) blood does not sprinkle.
- (C) fingerprints would have been left by the defendant if he had touched the clothing.
- (D) bloody hands will not leave the described mark.

2. The large number of fatal motor-vehicle accidents renders necessary the organization of special units in the police department to cope with the technical problems encountered in such investigations.

The generalization which can be inferred *most directly* from this statement is that

- (A) large problems require specialists.
- (B) technical problems require specialists.
- (C) many police problems require special handling.
- (D) many policemen are specialists.

3. In examining the scene of a homicide one should not only look for the usual, standard traces – fingerprints, footprints, etc. – but should also have eyes open for details which at first glance may not seem to have any connection with the crime.

The *most logical* inference to be drawn from this statement is that

- (A) in general, standard traces are not important.
- (B) sometimes one should not look for footprints.
- (C) usually only the usual, standard traces are important.
- (D) one cannot tell in advance what will be important.

4. Officer Chang didn't eat anything but small pieces of bread and butter.

The sentence that is *closest in meaning* to the one given above is that

- (A) He ate small pieces of bread and butter but didn't like them.
- (B) He only ate some small pieces of bread and butter.
- (C) He didn't eat anything, not even the bread and butter.
- (D) He didn't touch the bread and butter, but he ate other things.

5. After failing a doping test at the Beijing Olympics, John Peterson was stripped of his gold medal.

The sentence that is *closest in meaning* to the one given above is that

- (A) At the Beijing Olympics, John Peterson and many others were disqualified after failing a doping test.
- (B) If John Peterson hadn't been tested positive for doping at the Beijing Olympics, he wouldn't have lost his gold medal.
- (C) Since John Peterson confessed having used doping, his gold medal was taken back.
- (D) Although John Peterson failed the doping test, he wasn't disqualified from the Beijing Olympics.

Qs 6-10 :

Since the early 1990s, the police have become much more interested in a broader idea of prevention and the use of a wide range of crime prevention 6. The search for greater citizen satisfaction, increased legitimacy and more effective crime prevention 7 to the traditional tactics used by most police departments led to the development of problem-oriented policing and hot-spots policing. The operational paradigms of many modern police departments have steadily 8 from a "professional" model of policing to a community-oriented, problem-solving model. Growing community dissatisfaction and a series of research studies that questioned the 9 of the professional model's basic tenets served as catalysts for the 10.

- | | | | |
|----------------|-------------------|----------------|----------------|
| 6. (A) tension | (B) trash | (C) tactics | (D) timber |
| 7. (A) abuses | (B) alternatives | (C) abstracts | (D) amazements |
| 8. (A) evolved | (B) enclosed | (C) estimated | (D) eroded |
| 9. (A) walkout | (B) effectiveness | (C) incitement | (D) turbulence |
| 10.(A) distort | (B) assignment | (C) hostility | (D) shift |

四、Essay : (30 分)

Write an essay on the topic : Combatting Fraud

Fraud has been one of the fastest growing crimes in recent decades. The current epidemic in fraud has been attributed to the rapid growth of the Internet and digital finance, the vast expansion of mobile phones, and the limited response of law enforcement agencies. Please describe your opinion about the strategy against fraud.

中央警察大學 107 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：

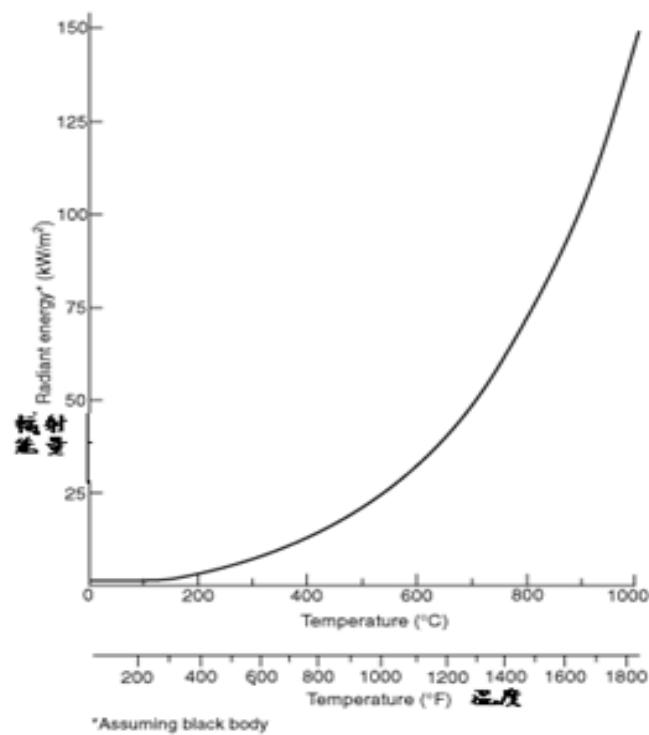
1. 本試題共 4 題，每題各占 25 分；共 2 頁。
2. 不用抄題，可不按題目次序作答，但應書寫題號。
3. 禁用鉛筆作答，違者不予計分。
4. 不需使用計算機，可用中文答題。

一、請依序回答下列問題：

- (一) Find the general solution. $y' + \frac{y}{x} = 3x^2$; $y(1) = 5$. (8 分)
- (二) Solve the initial value problem. $y'' + 4y = 8x$. (8 分)
- (三) Solve the initial value problem. $y'' + y' + 3y = 5\sin(2x)$. (9 分)

二、請以 Heskested 實驗所得結果，詳細說明火羽流現象之火焰平均高度的計算公式及其參數，並請說明對於大部分氣體及液體燃料，在一般狀況下火焰平均高度的簡化結果為何？(25 分)

三、熱能之傳送是影響火災成長主要的項目，其具有引火、成長、擴散、衰退等作用，供消防搶救措施之參考。熱傳同時也反應出大量的物理證據可供火災調查人員研判起火處所及起火原因。下圖為輻射能量與溫度曲線圖，試說明火災處於全盛期，熱量傳遞以何種方式為主？其與閃燃之關係為何？



四、水蒸氣爆炸為消防救災可能遇到之情形，請依序回答下列問題：

- (一) 水蒸氣爆炸之原理為何？
- (二) 原油槽或重質油槽因突沸(Boilover)產生之水蒸氣爆炸，與火爐等高熱物遇水產生之水蒸氣爆炸，對消防搶救人員而言，有何差異？
- (三) 身為消防人員，不論是帶隊官或是第一線救災人員都應對原油或重質油之沸溢或突沸(Boilover)現象瞭解，並做好觀察、預測之工作，請概述其發生之徵兆有哪些？

中央警察大學 107 學年度碩士班入學考試試題

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：

1. 本試題共 4 題，每題各占 25 分；共 2 頁。
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。

一、既存護理之家的樓面，計有三個不同大小相鄰之住房空間，因衛生局督考作業之建議，而選擇其中一個面向道路住房之外牆處，設置排煙風機，直接向外排氣。消防安檢時，有某轄區消防官員建議可對其他相鄰的兩處住房隔間牆上方靠天花板處，設 2%以上的開口，以提高該排煙機的應用效益。請針對上述該消防官員的建議，申論其合宜性。

二、用於船艦艙房的氣體滅火設備，相對於陸上基地設施的防護對象空間，有何應特別注意之人命保安措施？試說明之。

三、為使高層建築物內居民於火場時能順利避難逃生及俾利消防搶救而規畫相對安全區，因此，要求設置排煙設備，請試繪特別安全梯排煙室與緊急升降機間兼用時之建築平面圖中有關消防安全設備設計圖說（簡稱消防圖），並說明其自然排煙與機械排煙之相關規定？現行排煙設備檢查方法及應注意重點項目為何？簡述實務上有哪些設計、審查、檢修申報時可行的改善措施與建議？

四、何謂火警分區，其法定要求為何？有關火警自動警報設備之鳴動方式有哪些規定？試述光電式分離型探測器的設置規格及性能規定？該項試驗方法及試驗所發現之不合格情形，判定為致命缺點等級之規定？現以提昇小型社福機構火災發生時之通報效率（縮短 119 報案時間），避免延誤報案致生重大火災事故為例，請說明有關 119 火災通報裝置設計，來確保能將火災訊息以迅速確實的通報方法通知消防機關，以利及時應變及降低火災損害於最低限度。

中央警察大學 107 學年度碩士班入學考試試題

所 別：消防科學研究所

科 目：消防實務

作答注意事項：

1. 本試題共 4 題，每題各占 25 分；共 2 頁。
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。

一、近年來多起護理之家火災事件常造成重大傷亡，此類事件頻頻引起社會大眾及政府高度關注。因此，行政院特別提出「強化長期照顧機構公共安全推動方案」，試問此方案中，有何重大消防設施之改善方向？並請評論之。

二、現階段進行火災調查時，常依據「火災調查鑑定作業要領」進行相關的工作，試問：如火災現場有輻射外洩之虞時，應如何進行調查？

三、2013 年至 2015 年間消防人員處理火災殉職就有 16 人，其中 4 起為災害現場發生驟變，後續支援到場的消防人員（臨時組成團隊之人員）無法發揮應有之績效所導致，請問大規模災害發生時，現行消防局災時緊急應變處置機制與派遣模式為何？消防作戰需要的團隊凝聚力，請問受派遣的資源、計畫與機制、參與者能力等應考量的災變適應力影響因子為何？請以 2014 年 7 月 31 日高雄市前鎮區大氣爆案件、2015 年 1 月 20 日桃園市新屋區亞洲保齡球館火災案件為例，說明火場安全官的職責為何？其應如何作為，才能確保全體救災人員的安全。

四、為確保能順利進行消防救災，當災害事故演變愈大或複雜時，良好的指揮系統與消防戰術才能有效地運用現有的救災資源。請問現行各單位常用的事故管理系統 ICS(Incident Command System)、事故救災指揮與管理系統 CCIO(Command and Control of Incident Operations)、火場搶救狀況判斷模式(兵推)等三種火場判斷模式在作業觀念、災害現場指揮系統的「情境判斷」、擬定救災戰術決策選定與指揮運作理念差異如何？現以某老人長期照護中心之五樓病理檔案室凌晨二點發生火災冒出濃煙，該中心人員嘗試用滅火器做初期滅火失敗並通報 119，起火樓層在消防單位到達時，已籠罩在陣陣濃煙中。假設其他各樓層皆已疏散，僅該樓層因收容 53 位插管或氣切之病患尚待救援，如果你是火場指揮官，面對此情境及場所特殊性，請以前述三種火場指揮判斷模式來擬定您在人命救助及滅火攻擊作業上救災戰術，並評述其異同處及應考量重點、注意事項。