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 sentences 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：資訊管理研究所
科　　目：計算機概論

作答注意事項：
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一、解釋下列名詞，每小題 5 分

  （一）行程控制表（Process Control Block）

  （二）多執行緒（Multi-thread）

  （三）中程排班程式（Medium-term Scheduler）

  （四）傳輸層安全性協定（Transport Layer Security）

  （五）對稱式密碼系統（Symmetric Cryptosystem）

二、請回答下列問題：

  （一）評估演算法的時間複雜度有三種方法：(a) Big-O of n (b) Big-Omega of n (c) Big-Theta of n，請舉例說明此三種評估方法。（15 分）

  （二）請寫出賽程排序(Tournament Sort)演算法，並說明之。（10 分）

三、請回答下列問題：

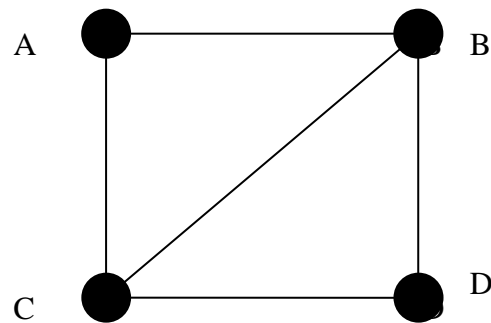（一）Convert the following two's complement representation to its equivalent base ten (i.e. decimal) representation. （8 分）

(i) 11101111　　(ii) 00001101

（二）What is the difference between stack data structure and queue data structure? （9 分）

（三）Convert the decimal number 15 and -9 into 8-bit 2's complement numbers and hexadecimal numbers. （8 分）

四、Consider the following graph:

（一）Draw a tree showing all paths from A and highlighting those that are Hamiltonian circuits. （12 分）

（二）How many paths have to be examined? （13 分）

中央警察大學 107 學年度碩士班入學考試試題

所　別：資訊管理研究所
科　目：管理資訊系統

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一、假如你目前服務於某個縣市政府警察局資訊室，負責資訊系統規劃工作，警察局為配合行政院毒品防制與反毒政策，希望透過大數據和資訊科技，來蒐集、處理、分析、利用相關毒品案件等資料。回答問題：

（一）提出建立一套「治安大數據處理平台」的構想。

（二）寫出安裝 SPARK 大數據計算系統的軟體名稱與其過程，包括個人電腦與雲端虛擬主機等環境。

（三）指出處理 SPARK 大數據用資料的三種電腦語言名稱。

（四）指出處理 SPARK 大數據資料過程中可能會面臨哪些問題，以及如何解決。

（五）說明傳統 SQL 和 No SQL 在大數據資料儲存上，必要且並存使用。

二、解釋名詞：

（一）Social Engineering

（二）Platform for Privacy Preference (P3P)

（三）Text Mining

（四）Confusion Table (Data Mining)

（五）Artificial Intelligence (AI)

三、何謂顧客關係管理（Customer Relation Management, CRM）？試繪圖並描述其資訊科技架構。

四、在系統分析與設計中，試述何謂「雛形開發法（Prototyping）」，請一併討論其優、缺點，以及適用時機。

中央警察大學 107 學年度碩士班入學考試試題

所　別：資訊管理研究所
科　目：電腦犯罪與資訊安全

作答注意事項：
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一、請回答下列問題：

（一）雲端的電腦犯罪是新興手法之一，說明三種雲端儲存服務軟體，並比較特性與資料儲存方式。（10 分）

（二）試舉例說明電腦犯罪在此三種雲端服務軟體平台發生時，各該採取何作為？以順利進行犯罪證據的追蹤與保存，得以還原犯罪現場。（15 分）

二、請回答下列問題：

（一）資訊安全的 Feistel 結構為何？說明其特質。（10 分）

（二）資訊安全的 HASH 的設計結構為何，說明其特質。並用兩種方式設計資訊安全的 MAC。（15 分）

三、John is a senior citizen from Taipei, Taiwan. Recently, he has noticed that his computer is running slowly. Pop-up advertising appears when he opens his browser and his home page has been changed. He is not sure what is happening, but suspects that his computer has a malware.

（一）Please translate the above paragraph into Chinese. （10 分）

（二）What to say when John asks, 'What shall I do?' Please explain more on this issue. （15 分）

四、IoT security (Internet of Things security) is the area of endeavor concerned with safeguarding connected devices and networks in the Internet of things (IoT). Much of the increase in IoT communication comes from computing devices and embedded sensor systems used in industrial machine-to-machine (M2M) communication, smart energy grids, home and building automation, vehicle to vehicle communication and wearable computing devices.

（一）Please translate the above paragraph into Chinese.（10 分）

（二）What are the IoT security problems and challenges? Please explain more on this issue.（15 分）