所 别:各所

科 目:國文

作答注意事項:

- 1.本試題共2大題,每大題各50分;共1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.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、呦呦鹿鳴,食野之蒿。我有嘉賓,德音孔昭。視民不桃,君子是則是傚。 我有旨酒,嘉賓式燕以敖。(《詩經·小雅·鹿鳴》)
- 二、初,鄭武公娶于申,曰武姜,生莊公及共叔段。莊公寤生,驚姜氏,故名 曰寤生,遂惡之。愛共叔段,欲立之。亟請於武公,公弗許。(《左傳》隱 公元年)
- 三、往者貞觀之初,率土霜儉,一匹絹才得累一斗,而天下帖然。百姓知陛下 甚憂憐之,故人人自安,曾無謗讟。(《貞觀政要·論儉約》)
- 四、發慮憲,求善良,足以謏聞,不足以動眾;就賢體遠,足以動眾,未足以 化民。君子如欲化民成俗,其必由學乎!(《禮記·學記》)
- 五、子曰:「君子之於天下也,無適也,無莫也,義之與比。」(《論語·里仁》)

貳、論文:50分

[宋]蘇軾〈刑賞忠厚之至論〉云:「先王知天下之善不勝賞,而爵祿不足以勸也;知天下之惡不勝刑,而刀鋸不足以裁也。是故疑則舉而歸之於仁,以君子長者之道待天下,使天下相率而歸於君子長者之道。」請參酌前引古文之思想,以「忠厚乃待人之道」為題,寫作論文一篇。

所 别:各所

科 目:英文

作答注意事項:

- 1.本試題共4大題;共2頁。
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- 3.禁用鉛筆作答,違者不予計分。

一、Vocabulary and Phrases: (20 分)

(一)輻射汙染 (六)司法互助

(二)自拍神器 (七)溫室效應

(三)事故現場 (八)恐怖攻擊

(四)警政署署長 (九)食安危機

(五)客機空難 (十)內線交易

二、Translation:(30分)

- (一) For at least half a century, police have considered it important to cut to a minimum of their response times to crime calls. The faster the response, they have reasoned, the better the chances of catching the criminal at or near the scene of the crime. (10 分)
- (二) Officers shall not use their police power to resolve personal grievances (e.g. those involving the officer, family members, relatives, or friends) except under circumstances that would justify the use of self-defense, actions to prevent injury to another person, or when a serious offense has been committed that would justify an arrest. (10 分)
- (三) The essence of the police role in maintaining order is to reinforce the informal control mechanisms of the community itself. Areas where community controls break down are vulnerable to criminal investigation. (10 分)

三、Reading Comprehension: (20 分)

Another large-scale study conducted by William Spelman and Dale Brown and published in 1984 was also to challenge a core police assumption of that period – that improvement in rapid response to calls for service would lead to improvements in crime fighting. This study was developed in good part because of the findings of a prior investigation in Kansas City that found little support for the crime control effectiveness of rapid response to calls for service (Kansas City Police Department 1977). With support from the National Institute of Justice, Spelman and Brown investigated 4000 victims, witnesses, and bystanders in some 3300 serious crimes in four American cities. This was another major study in terms of the resources brought to bear and the methods used. Again it examined a strategy that was aided by technological advances in the twentieth century and that was central dogma of police administrators – that police must get to the scene of a crime quickly if they are to apprehend criminal offenders.

根據以上內容,用英文回答以下問題(每題2分):

- (一) Spelman and Brown 的研究報告發表於哪一年?
- (二)在 Spelman and Brown 的研究之前,哪個城市警察局做過類似研究?
- (三) Spelman and Brown 的研究是在哪個部門的支持下進行?
- (四) Spelman and Brown 研究的實證資料係蒐集自幾個美國城市?

根據以上內容,用中文回答以下問題(每題3分):

- (五) Spelman and Brown 所要挑戰的研究假設是什麼?
- (六)在 Spelman and Brown 研究之前的類似研究,有何研究發現?
- (七) Spelman and Brown 研究的實證資料來自 4000 個研究對象,這些研究對象 是每個案件中的什麼人?
- (八) "dogma of police administrators"的意義為何?

四、Essay: (30 分)

Write an essay on the following topic. The length of your essay should be <u>no less</u> than 100 words and <u>no more than 200 words</u>.

"Mobile Police Station" and its Impacts

所 别:防災研究所

科 目:災害分析與統計

作答注意事項:

- 1. 本試題共4題,每題各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. 可用中文答題。
- Suppose that explosion accidents on a particular city occur on the average about four times every year. If the occurrence of explosion accidents on this city constitutes a Poisson process, (Note:自然對數的指數次方值可以不必計算出來)
- (-) find the p. m. f. of the number of the explosion accidents. (6 %)
- (=)Suppose further that and the proportion of causing fatal explosion accident is 1/4, find:
 - 1. the p. m. f. of the occurrence of fatal explosion accidents, and (9分)
 - 2. the probability of exactly one fatal explosion accident in a given year. (10 %)

二、試回答下列問題:

- () Describe "least square method" and three different types of sampling distributions. ($10\ \%$)
- (二) Describe "p-value" and "t-test (both matched sample test and independent sample test)." (10 分)
- (Ξ) If X follows normal distribution with mean 4 and variance 4, find

$$\left[\int_{-\infty}^{\infty} x^{2} \frac{1}{\sqrt{2\pi}} e^{-\frac{1}{2}(\frac{x-4}{2})^{2}} dx\right] - \left[\int_{-\infty}^{\infty} x \frac{1}{\sqrt{2\pi}} e^{-\frac{1}{2}(\frac{x-4}{2})^{2}} dx\right]^{2} = ? (5 \%)$$

- 三、今年3月14日至18日,上萬名來自世界各地災害防救領域的產、官、學專家,於日本仙台參加第三屆聯合國減災會議(The Third United Nations World Conference on Disaster Risk Reduction)。會議中討論主題之一為建構國家及社區的災害韌性(building the resilience of nations and communities to disasters),這顯示「災害韌性」是國際上災害防救的重要概念與議題。請問:你認為災害韌性(resilience to disaster)包含哪些面向?若你受命分析台灣各縣市的災害韌性,你將運用哪些資料及方法進行之?
- 四、災害防救法指出,為有效執行緊急應變措施,各級政府應依權責實施災害防 救設施、設備之整備及檢查。收容場所是保護受災民眾或有受災之虞者的設 施,其需求量、使用者特性應預先分析、評估,以利收容場所之規劃及後續 整備。請<u>分別</u>以和颱風相關的「水災」及「土石流」為例,說明(一)進行 鄉、(鎮、市、區)之收容需求分析時,應掌握哪些資訊?(二)如何利用 上述資訊進行鄉鎮市區層級轄區的收容需求量及使用者特性分析?

所 别:防災研究所

科 目:災害管理

- 1.本試題共4題,每題各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。
- Owing to variety of social and technological changes, the danger level from environmental hazards is increasing. Most of these trends are not directly with changes in the physical dimension. Rather it is how and where we live. Disaster has many faces, and some of these reflect technological accidents, while others are rooted in the despair of the disenfranchised or the ethnic and religious hatred of extremists who have little tolerance for the diversity among people. Because disasters come in many faces. (You can answer this question in Chinese. 可用中文回答)
- () Please state briefly how to differentiate among disaster events.
- (=) If the research approach is rooted in the empirical and comparative study of disaster behavior, please state the key principles of the research approach.
- 二、當相關公部門都預測災害即將侵襲之下,臨災前的舉棋不定,該何去何從?面對媒體的強力播放,以及來自親屬的關切,是否該斷然疏散撤離?如果撤離,哪裡是安身之所?眼前僅有的家當能否倖免於難?哪些該隨身攜帶?許多念頭紛紛從腦海中閃過,而最為重要的是,暫時的棲身之所能待多久?當居民想到將被阻隔於住家之外,需寄人籬下之時,心情必然不悅,就算是眼前危機四伏。因此,稱職的地方災管人員(local emergency manager)必須設身處地理解居民的需求,並掌握必要的資源,以回應居民的訴求。這是災管人員的天職,也是必備的基本素養。因此,災管人員可以透過哪些措施(evacuation facilitators),來提升居民臨災前疏散撤離的效率,化解居民臨災時的疑慮?

- 三、請說明一個地區緊急計畫系統 (local emergency planning system)制定的流程 為何?並請以高雄氣爆事件為例,說明地方政府如何有效地掌握此一流程並 妥善制定其地區防災計畫?
- 四、請說明災害現場管理系統(Incident Command System, ICS)的基本特徵與原則、完整的組織編組架構為何?並請以一大型建築物倒塌現場救災為例,假想相關境況,並說明如何運用 ICS 建立其現場指揮編組架構?

所 别:防災研究所

科 目:氣候變遷與災害

- 1.本試題共4題,每題各25分;共3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、全球環境變遷帶來災害事件的高度複雜性與不確定性,因此,災害管理的思維從早期著重的應變階段,逐漸轉為強調從減災階段來進行根本且長期性的因應。請以風險(risk)、災害(hazard and disaster)、脆弱性(vulnerability)、回復力(resilience)、適應性(adaptation)等概念申論在全球氣候變遷之下,災害管理的減災(mitigation)、整備(preparedness)、應變(response)、復原(recovery)四階段之行動內容與關注重點,並以臺灣的社區防災為例闡述之。
- 二、請解釋下列專有名詞並申論與災害防救的關連性。
- () Recycling-based Society
- (二) Sustainable Development
- (三) Water Neutral
- (四) Think Globally. Act Locally.
- (五) Biological Pump
- 三、年初以來由於春雨不足,臺灣面臨十年大旱,各地方政府相繼採取限水措施。 臺灣平均年降雨量高達 2,500 毫米,為全世界平均值的 2 倍之多,依然無法 避免缺水之苦。試分析臺灣水資源保持與使用上的問題並提出具體改善的建 議。

- 四、政府間氣候變化專門委員會 (IPCC)於 2014 年出版了第五次評估報告,其中第二工作組 (WG2)以衝擊影響 (impacts)、適應性 (adaptation)和脆弱性 (vulnerability) 析論氣候變遷帶給人類社會系統和自然系統的潛在風險與因應策略,並以下圖 1 做為分析的核心架構、更進一步提出相關可能解決概念如圖 2。請:
- (一)解釋圖1中重要概念的意義與相互關係。
- (二) 參考圖 2, 舉例說明這個分析架構如何解釋當今全球環境變遷與災害。

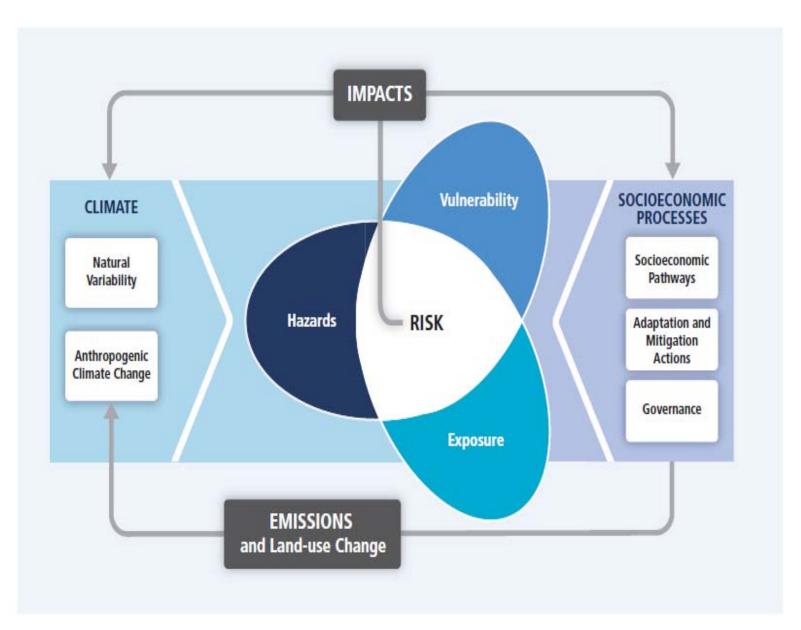


圖 1

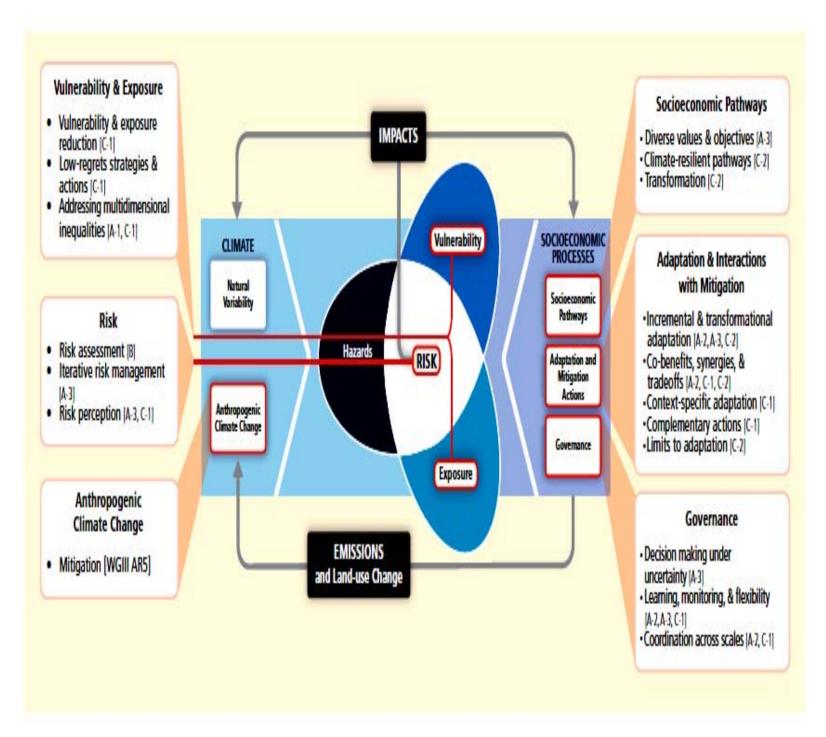


圖 2

圖片來源:

IPCC (2014) Climate Change 2014: Impact, Adaptation, and Vulnerability. A Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. World Meteorological Organization, Geneva, Switzerland, 190 pp. (in Arabic, Chinese, English, French, Russian, and Spanish)

所 别:各所

科 目:國文

作答注意事項:

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- 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。

所 别:各所

科 目:英文

and the second second			
作答注意事項:			
1.本試題共4大題	; 共 4 頁。		
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3.禁用鉛筆作答,	違者不予計分。		
- \ Vocabulary and Pl	hrases:(20 分)		
1.digital evidence			
2.informant			
3.INTERPOL			
4.polygraph			
5.in the line of duty			
6.The violence outside	de 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 we	ere discovered in the
high-rise building.			
(A) cordoned off		(B) congested w	rith
(C) posted to		(D) emancipated	d from
8.The accused	against the dea	th sentence to the	Supreme Court.
(A) adhered	(B) accommodated	(C) adjusted	(D) appealed

9 is a	n person who is involved	ved with another in	the commission of	
crime whether as	a principal or as an ac	cessory.		
(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) commandmen	t	(D) confession	1	

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 <u>1</u> on Biblical interpretations and classical mythology. Jerusalem was at the center. At the margins the map-makers drew monsters and savages, because there, <u>2</u> the Christian center, Nature herself was believed

a

to be monstrous. Then <u>3</u> 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 <u>5</u> 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	(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.

所 别:防災研究所

科 目:災害分析與統計

作答注意事項:

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- 3. 禁用鉛筆作答, 違者不予計分。

一、請回答下列問題:

- () Describe "mutually independent" and "mutually exclusive" in terms of event E and F, P(E), P(F), P(E \cap F), P(E \cup F), P(E|F) or P(F|E) given that P(E) \neq 0 and P(F) \neq 0. (7 \Rightarrow)
- (二) Describe "clustering sampling" and "sampling distribution". (6分)
- (三) Describe "Type II error" and "the purpose of ANOVA". (6分)
- (四) If X follows normal distribution with mean 5 and variance 9, find

$$\left[\int_{-\infty}^{\infty} x^{2} \frac{1}{\sqrt{2\pi}3} e^{-\frac{1}{2}(\frac{x-5}{3})^{2}} dx\right] \left[\int_{-\infty}^{\infty} x \frac{1}{\sqrt{2\pi}3} e^{-\frac{1}{2}(\frac{x-5}{3})^{2}} dx\right] = ? (6 \%)$$

二、旋風可分 2 類:即 I (強)與 II (弱)。依某城 18 年的紀錄,受到 I、 II 旋風侵襲的次數分別為 9 次與 54 次。假設任何 2 個旋風之發生互相獨立,且其發生皆為 Poisson 過程。求:

(Note:自然對數的指數次方值可以不必計算出來)

- (一)下一年該城無強旋風來襲之機率? (7分)
- (二)下一年該城受2次旋風來襲的機率為何?(不管Ⅰ、Ⅱ)(8分)
- (三)下一年若有 2 次旋風來襲,則 2 次皆為強旋風之機率為何?(10 分) (Hint: What distribution does (X|X+Y) follow?)

- 三、掌握災害風險是進行災害防救規劃的重要基礎。在 FEMA 386 減災規劃系列二之「認識風險」(Understanding Your Risks: Identifying Hazards and Estimating Losses, FEMA 386-2)中建議:透過「危害辨識」、「描述危害」、「盤查資產」及「評估災損」4 步驟策略來進行災害分析。設想你受命將進行某縣市的災害分析,並被指定運用上述步驟來進行,請說明你將如何進行該縣市的災害風險分析。
- 四、今年2月6日發生美濃地震,造成南臺灣多處建築損毀等災情,並提醒國人須對地震有更積極的因應。在研擬因應方案時,某項議題可能有多種行動方案可採行,如可採結構補強、地質改良來因應地震帶來的建物破壞。不同的行動方案或各有優劣,權益關係者、成本、成效也可能有甚大差異。規劃者常需透過方案分析評估來比較其優劣。請列舉在分析評估各替選方案時,應考量哪些面向?並略述各面向下各有哪些考量重點?

所 别:防災研究所

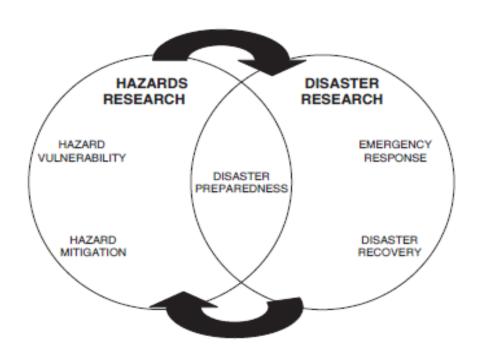
科 目:災害管理

- 1. 本試題共4題,每題各占25分;共1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、從 2014、2015 年的 2 次復興航空空難事故現場與 2016 年美濃地震時的臺南維冠大樓災區,均可見大量志工團體(Volunteers)投入救災工作,過程中與災管主管機關之間,也出現部分扞格之處。就災害管理面向,試申述:志工團體參與救災工作的管理策略。
- 二、考量兵庫行動綱領的經驗,以及為達到「2015-2030 仙台減災綱領」預期的成果和目標,必須要有聯合且聚焦的行動。試述 2015 年第 3 屆世界減災會議中,所通過的優先推動項目有哪些?
- 三、請說明目前我國中央災害應變中心的編組架構為何?此一組織架構與以往的編組方式相比較有何優缺點?
- 四、請以日本 311 大地震造成的複合式災害為例,說明複合式災害可能引發的問題為何?面對巨大的複合式災害衝擊,政府應如何有效地進行災害整備工作,以降低社會的脆弱度?

所 别:防災研究所

科 目:氣候變遷與災害

- 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、試說明教育部「區域防災及氣候變遷調適教育服務推廣團計畫」的內涵,並 申論如何因應此計畫及尋求相關資源進行防災校園的建置,以落實防災教育 的推廣。
- 二、請說明身為公部門的消防幹部,如何進行以「氣候變遷下的生活防災」為目標之防災宣導,試擬1份企劃案。
- 三、請申論氣候變遷與災害之關係,並以下圖分析氣候變遷與 hazard、di saster 之間的關係。



圖片來源: National Research Council (2006) *Facing Hazards and Disasters: Understanding Human Dimensions*. Washington, DC: The National Academies Press, doi:10.17226/11671, p13.

四、繼「2005-2015 兵庫行動綱領」之後,聯合國於 2015 年 3 月在日本仙台舉行 第 3 屆世界減災會議(UN World Conference on Disaster Risk Reduction),會中 通過「2015-2030 仙台減災綱領(Sendai Framework for Disaster Risk Reduction 2015-2030)」,試舉一實例論述其所提出的"Build Back Better"概念與減災、永續發展、減緩氣候變遷間的關聯性。

所 别:各所

科 目:國文

作答注意事項:

- 1.本試題共2大題,每大題50分;共1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. 請以橫式書寫作答。

壹、解釋下列語句之義:(每小題 10 分,共 50 分)

- 一、天子之所是未必是,天子之所非未必非,天子亦遂不敢自為非是, 而公其非是於學校。(黃宗羲《明夷待訪錄·學校》)
- 二、聞誅一夫紂矣,未聞弒君也。(《孟子·梁惠王下》)
- 三、不違農時,穀不可勝食也;數罟不入洿池,魚鼈不可勝食也;斧 斤以時入山林,材木不可勝用也。(《孟子·梁惠王上》)
- 四、子游曰:「事君數,斯辱矣;朋友數,斯疏矣。」(《論語·里仁》)
- 五、士方其佔畢咿唔,則期報於科第綠仕。或少讀古書,窺著作之林 則責報於遐邇之譽,後世之名。(曾國藩〈聖哲畫像記〉)

貳、論文:50分

《荀子·勸學》:「騏驥一躍,不能十步;駑馬十駕,功在不舍。」 請參酌前引古文之思想,以「學習與實踐」為題,書寫作文一篇。

所 别:各所

科 目:英文

作答注意事項:

1.本試題共4大題;共5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)

1、年金改革

6、川普政府

2、化武攻擊

7、併排違停

3、檢調單位

8、保障人民權利

4、限制出境

9、促進社會進步

5、北韓政權

10、肇事逃逸責任

二、Translation:(30分)

(一)(中翻英):幫派份子從事犯罪活動,目的是要增加或維持聯盟的力量、 聲明或經濟財源,他們在聯盟內部會有加入或運作的規定,聯盟提供成員 身體上的保護,以抵禦其他罪犯或幫派,並致力對於特定地點或區域行使 其控制,以防衛利益不受對手侵犯。

(=) (English to Chinese): Buying drugs from a suspect is a direct means of gathering evidence. Undercover drug operations, though dangerous, is useful in identifying participants in drug conspiracies. Undercover officers should be intelligent, reliable, confident, and resourceful, and have good judgment and excellent communication skills.

- 三、Reading Comprehension: (20分)
- Qs 1-5: Closest in Meaning Test: Find the sentence that is closest in meaning to the one given for each question.
- 1. Police officers are prohibited from firing warning shots under any circumstances; police officers are also not permitted to shoot at a moving vehicle unless the vehicle being shot at is being used in an assault attempt.
 - (A) When their lives are threatened, police are authorized to fire warning shots.
 - (B) Police officers are never allowed to shoot at moving vehicles.
 - (C) Police officers can shoot at moving vehicles only if a police officer's life is threatened.
 - (D) Police officers can sometimes shoot at a moving vehicle.
- 2. "Law must be stable and yet it cannot stand still," means most nearly that
 - (A) law is a fixed body of subject matter.
 - (B) law must adapt itself to changing conditions.
 - (C) law is a poor substitute for justice.
 - (D) the true administration of justice is the firmest pillar of good government.
- 3. We must remember what happened in the past so that it will never happen again.
 - (A) If we could remember the past, it would not happen again.
 - (B) In order not to repeat the past, we should certainly not forget what happened then
 - (C) Since we all tend to forget what happened in the past, we do the same mistakes again.
 - (D) Those who couldn't remember what happened in the past were more likely to repeat it.

- 4. Because of his innocent face, it is difficult even today to believe he was a criminal although it had been certainly proven.
 - (A) Today it is possible to understand why people didn't want to believe that he was guilty as he had an innocent face.
 - (B) If it had been proven that he was guilty, they would believe that he was a criminal.
 - (C) It doesn't necessarily mean that criminals can't have an innocent look.
 - (D) Despite the fact that he was proven to be a criminal, his innocent face makes it difficult to believe that.
- 5. French is the only language other than English spoken on five continents.
 - (A) French and English are the only languages that are spoken on five continents.
 - (B) French and English are spoken widely in official and commercial circles.
 - (C) Before English, French was the only language spoken on five continents.
 - (D) Worldwide, French is the most widely taught second language after English.

Qs 6-10: Based on the passage below, answer the questions that follow it.

Crime prevention through environmental design (CPTED) grew out of the concept of defensible space developed by an architect and urban planner. Sometimes referred to as designing out crime, it has become an important tool for police in assisting communities in crime prevention efforts. The theory is based on the belief that design of the physical environment can create opportunities for people to come together and at the same time can remove the opportunity for criminals to act freely. It does this by concentrating on a facility's design, landscaping, and security technology, including a combination of security and police personnel, to create a series of preventive measures that combine to reduce problems or disruptions to a facility. These same preventive measures are meant to provide a sense of confidence to the public that a location is secure.

CPTED is most cost-effective when included in original design plans because this saves the costs associated with renovating or moving existing facilities. An example of a CPTED-based renovation in a mall or a transit facility would be moving the payment

area of a parking lot where crimes have occurred closer to where it can be seen by general users or by the facility's security officer. In this case, the placement of the payment area increases safety through the environmental decision of moving it into a safer area. The same example in a new facility would require someone with knowledge of CPTED principles considering the placement of the payment area during the design phase so as to prevent having to move it later.

- 6. According to the passage, police departments are most likely to use CPTED when
 - (A) helping communities develop crime prevention strategies.
 - (B) looking for car thieves on city streets.
 - (C) designing new police stations.
 - (D) all of the above.
- 7. The passage states that CPTED was developed by
 - (A) police community relations units.
 - (B) parking lot developers.
 - (C) a master builder and municipal planner.
 - (D) private security directors.
- 8. Based on the passage, CPTED would be least useful when
 - (A) renovating a suburban train station.
 - (B) renovating a shopping mall.
 - (C) renovating a private residence.
 - (D) renovating a public-access interior courtyard in a museum.
- 9. According to the passage, CPTED is most cost-effective
 - (A) in renovations.
 - (B) in new construction.
 - (C) when combined with other uniformed patrol tactics.
 - (D) when combined with plainclothes patrol tactics.

- 10. As a police officer, you would most likely be expected to have a knowledge of CPTED as a
 - (A) homicide detective.
 - (B) crime prevention officer.
 - (C) crime scene investigator.
 - (D) stationhouse sergeant.

Write an essay on the topic: Stress Management in Law Enforcement

No job is immune from stress, but for the law enforcement officer, the strains and tensions experienced at work are unique, often extreme, and sometimes unavoidable. In your opinion, how to tackle this work-related stress? Write an essay on this issue.

所 别:防災研究所

科 目:災害分析與統計

作答注意事項:

- 1.本試題共4題,每題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、請回答下列問題:

- (一)經歷史資料顯示,歷年來那卡部落每年平均發生土石流的機率為 0.4,發生地震的機率為 0.6,發生土石流或地震的機率為 0.76。證明發生土石流與地震互為獨立事件;並求發生地震下土石流發生的條件機率為何?
- (二)描述 t 分配的特性與功能。
- (三)何謂 ANOVA?其目的為何?需採用什麼檢定?
- 二、某學者針對全國各鄉鎮市區的災害防救整備程度進行評分,發現其分數恰為常態分配。若全國有300個鄉鎮市區參加評比,結果有6個鄉鎮市區整備分數達90分;有30個鄉鎮市區整備分數不到60分。 P(0<Z<0.94)=0.33, P(0<Z<1.28)=0.40, P(0<Z<2.05)=0.48
 - (一)請問全國鄉鎮市區的災害防救整備平均分數為何?
 - (二)標準差為何?
 - (三)若內政部採用此學者評分結果,將80分及以上,但不到90分 的鄉鎮市區列為考評甲等,則甲等的鄉鎮市區共有幾個?

- 三、當災害發生後,企業也可能受到災害衝擊而無法營運;若企業未能快速恢復營運,則可能永久倒閉。某鄉鎮災害防救地區計畫進行因應七級強震的規劃。計畫中將該鄉鎮共1000家企業區分為:高度整備、中度整備、低度整備三類。分析後,該鄉鎮有10%企業屬高度整備、50%屬中度整備、40%屬低度整備。若高度、中度、低度整備的企業在七級地震影響下,將有0.05、0.15、0.3的機率會倒閉。
 - (一)請依整備程度(高度、中度、低度)及災害影響(不倒閉、倒閉)兩向度,繪製企業災害衝擊家數交叉資料表。
 - (二)該鄉鎮在七級的地震強度下,將有多少家企業倒閉?
 - (三)請說明地震可能對企業營運造成什麼影響?
- 四、社區防災是近年來政府倡議的災害防救策略之一。多數團隊進入社區後,常著眼於社區的自然災害潛勢分析,但較忽略對社區防災的各權益關係者(或稱作用者、利害關係人)掌握與分析。請說明社區防災的推動有哪些主要的權益關係者?他們在社區防災過程中扮演了什麼角色?

所 别:防災研究所

科 目:災害管理

- 1.本試題共4題,每題25分;共1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、減災(Mitigation)是災害管理領域重要的工作,也是降低災害風險必要的途徑之一。請問,對於有效的減災作為,其要求的事項(Requirements for effective mitigation)為何?在減災的作為中,又可以區分為結構性與非結構性的減災,請說明此二種減災作為分別包含哪些內容?
- 二、災害發生後,對於民眾的安全與維護是災害應變非常重要的一環。 為確保民眾獲得妥善照顧,請問,當災害發生時,應處理與考量的 民眾防護 (Population protection) 議題有哪些?請以廣範圍的重大 地震災害為例說明之。
- 三、防災社區的營造,對促進災時居民自助、共助意識的實踐,至為重要。然,社區防災的推動方式必須因地制宜,推動過程中如何與社區建立關係,並了解社區,至為關鍵。從強化社區支持的角度,試述:可從哪些面向來了解社區?
- 四、大規模災害發生後,災區現場各方救災資源相繼投入,常見事權統合爭議。試述:當發生大規模災害,如何強化跨領域合作協調、指揮及管理機制?

所 别:防災研究所

科 目:氣候變遷與災害

作答注意事項:

- 1.本試題共4題,每題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、名詞釋義

- (一) 生態足跡(Ecological Footprint)
- (二)多樣性(Diversity)
- (三) 片利共生 (Commensalism)
- (四)國家環境政策法案(Act, NEPA)
- (五)仙台減災綱領 (Sendai Framework for Disaster Risk Reduction)
- 二、請以臺灣的都市化為例子,說明永續發展的重要性。
- 三、請解釋何謂極端氣候(extreme weather)?並試論氣候變遷與極端氣候之關係,以及根據風災、水災、坡地災害、旱災等四個面向,說明極端氣候對於這四個面向的影響。

四、請觀察附圖臺灣北、中、南、東四個地區超越淹水警戒值頻率變化 趨勢,解釋與說明附圖所觀察到的現象,並討論此四個地區分別該 如何因應災害與調適。

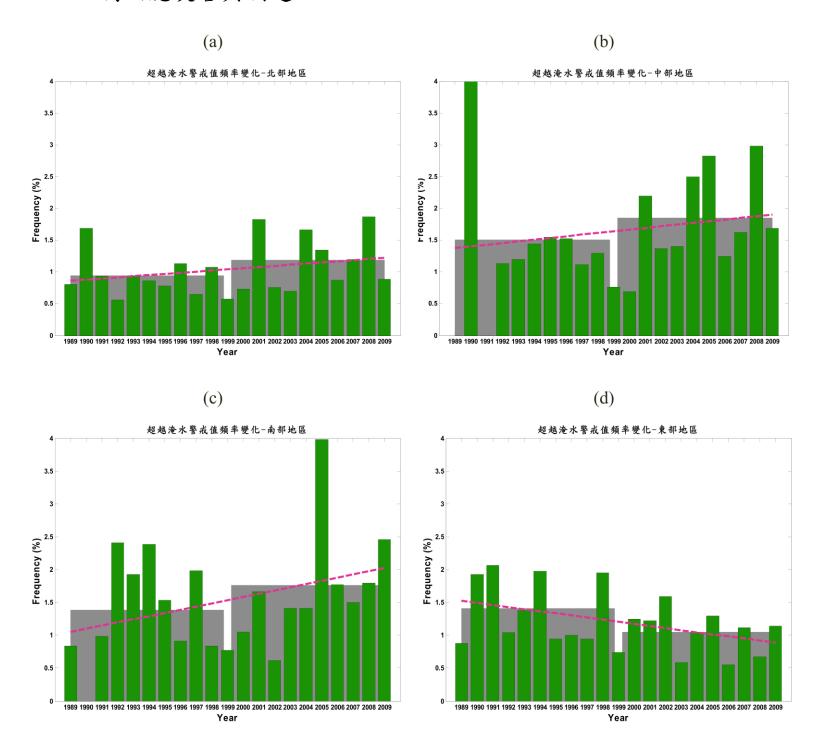


圖:1989-2009 臺灣地區分區日降雨量超過淹水警戒值發生機率。 (a)北區、(b)中區、(c)南區、(d)東區,柱狀圖為當年發生淹水 平均機率變化,底灰色為前十年與後十年之平均值,虛線為一 次迴歸趨勢線。

(資料來源:臺灣氣候變遷科學報告,2011)