			<u> </u>
考科	題號	答覆釋疑	釋疑結果
國文	28	1.《中文大辭典》所載(C)選項之「靡」字、其中的二種讀音分別為: (1)釋為「無」時,讀作三聲。 (2)釋為「糜散」時,讀作三聲。本選項「靡」釋為「糜散凋敝」,故讀作二聲。 2.教育部線上字典所引《詩經·小雅·節南山》:「亂靡有定」為一個句子。此處之「亂靡」在句中各具主語、副語之語法功能,不能單獨抽出成詞,亦非本選項所指涉。 3.本題幹為「何者有誤」,且為單選題,(B)選項音、義皆明顯有誤,故作為本題之答案。	維持原答案(B)
化學	42	理論上立體異構物的數目是 = 2 ⁿ ,有 meso compound 時,是 < 2 ⁿ 。本題目是檢視 chiral centers 的數目,嗎啡有五個 chiral centers,理論上立體異構物的數目是 = 2 ⁵ = 32。而非固定 C-9,C-13 再討論其立體異構物。 CH3 There are five chirality centers in morphine . It has 2 ⁵ stereoisomers in principle.	維持原答案(D)
	46	請參考" David Klein, "Organic Chemistry" p. 611 ,要產生碳陽離子進行 S _N 1 是要 3° 醇。	維持原答案(D)
	47	本題是簡單的 1 H-NMR 知識,化合物 I-III 絕對不符合 δ 1.2 (d),2.3 (s),2.8 (sept),7.1 (m)。只有化合物 IV 的 chemical shifts 與 splitting pattern 是符合。至於 7.1 (m)是苯環上的氫重疊 (overlapping)而取中間值。又考生質疑 δ 2.3 (s)應該是 2.3 (dd) 此質疑是錯,苯環的氫不可能在 δ 2.3 出現。本題是 p -substituted benzene 的 1 H-NMR,其苯環的氫理論上是 2 組,每一組是 doublet(d),也非 double doublet (dd)。但其化學位移重疊時一般用 multiplet (m)表示。	維持原答案(D)

考科	題號	答覆釋疑	釋疑結果
	48	本題是測試基本 organic lithium 與 α-unsaturated carbonyl compound 進行的是 1,2-addition,而不是 1,4-addition。有機鋰一般是用 excess 量。不會只進行酸鹼中和反應。何況本題是要最終主要產物,其中並無回收原料的選項。	維持原答案(A)
英文	32	1.本文第一段第二行 In fact, a virus emerged in the 1970s that could have been just that lethal.是本文的 thesis statement (主題論述)已指出本篇文章主要探討的是一種會致命的病毒(已將內文中兩種 Ebola virus 視為同類別)。 2.第二段 Two strains of the disease, with almost identical symptoms, affected humans	維持原答案(A)
	34	第三段之 Topic sentence 「Findings from basic research」是延續上一段「However, promising results have emerged,…」而來的,所以答案才會設定為 (C)。經釋疑審議小組會議決議,答案以選項(D)較為恰當。	更正答案為(D)
	40	閱讀部分已註明選擇最佳選項(Select the <u>best answer</u> to each question)。本段落之重點句 "There is sufficient evidence, however, of acupuncture's value to expand its use into conventional medicine" 強調 to expand its use 即鼓勵人們使用針灸療法,因此雖然選項(B) "More scientific studies are available now."也是內文重點之一,但最佳解釋仍為選項(D)。	維持原答案(D)

考科 題號	答覆釋疑	釋疑結果
5	Nature 426, 310-314 (20 November 2003)確實有報導, Transposon silencing in the Caenorhabditis elegans germ line by natural RNAi. 即 RNAi causes transposon silencing in the nematode germ line。而 miRNA 與 siRNA 有可能進行 RNAi 機 制,所以(A)與(B)也給分。	更正答案為 (A)或(B)或(C) 擇一皆可
10	依據 Campbell 10th page702 (Figure 30.12),花粉管在柱頭往下延伸過程,管核(tube nucleus)在內引導花粉管繼續延伸,另亦有生殖核分裂出的 2 個精核,所以共有 3 個核。花粉管是由管核引導出的通道,所以管核是屬於花粉管的一部分。	維持原答案(C)
生物學	依據 Campbell 10th page1080 右下倒數第四行 "Protein molecules on the tip of the extended acrosomal process bind to specific receptors that jut out from the plasma membrane of the egg". 以及 Figure 46.3 所示,sperm-binding receptors 確實畫在 egg plasma membrane 上,而 Jelly coat 是膜外的 extracellular matrix。Fig. 46.3 之(2)圖示說明,也再次說明"bind to receptors in egg plasma membrane". 同時依據文獻(1) Reproductive biology: Sperm protein finds its mate. Nature 508 (7497), 466-467 (2014) & (2) Juno is the egg Izumo receptor and is essential for mammalian fertilization. Nature 508 (7497), 483-487 (2014),也指出特定的 receptor 是在 egg plasma membrane。 liology is full of surprises. Such is the case with the findings of Bianchi et al.¹ reported on page 483 of this issue. The authors report the end of a decade-long search for a partner for the sperm protein Izumo1, which is responsible for sperm—egg adhesion during fertilization. The elusive mate is a member of the folate-receptor protein family, and is located on the plasma membrane of unfertilized eggs. Because of its essential role 所以,卵細胞膜有精子受器是正確的。當然這些 receptor 不管是文獻或者是 Campbell 10 所提,都是 transmembrane proteins,當然會延伸出來到透明帶。但是在膜上有受體是正確的。	維持原答案(B)

			(101 中 0) [15 日)
考科	題號	答覆釋疑	釋疑結果
	22	HIV 感染個體大都由 macrophage-tropic HIV 先感染macrophages 及 dendritic cells 開始,這些細胞上 HIV receptor有兩個,必須同時結合上 CD4 及 CCR5 co-receptor 才能感染個體組織內細胞。目前研究顯示少部分看不出免疫功能異常的人因 CCR5 co-receptor 缺失,所以導致 HIV 病毒無法感染(Campbell 9 th Ed. Ch7, p176)。雖然 CD4 也是 HIV receptor,但缺乏 CD4 的人適應性免疫系統嚴重缺失,會反覆不斷被病原菌感染。由題意明顯不是問"免疫缺失個體",所以答案應為CCR5。	維持原答案(C)
	25	著色性乾皮症(Xeroderma pigmentosum)可能的原因,主要是TTdimer 無法修復。TTdimer 的修復第一步需要 nuclease 的作用,即便 XP 在某一型態是因為其他基因缺失所致,但題目是問"最有可能",所以仍是(C) nuclease。	維持原答案(C)
	37	"The Immune system"第四版(2015 年出版)Ch8, p200 清楚的指出"The movement of a DC from infected skin tissue to the lymph node that drains the infection is accompanied by changes in the DC's surface molecules, functions, and morphology. DCs in the skin are active in the capture, uptake, and processing of antigens, but they lose these properties on moving to secondary lymphoid tissue while gaining the capacity to activate naïve T cells. The DCs in the skin and other peripheral tissues are called immature DCs, whereas those in lymph nodes are called mature DCs or activated DCs." Fig. 8.2 也詳細指出 immature DC 由周邊組織轉移至淋巴結內,在特性上的轉變。	維持原答案(A)
	45	依據 Williams Obstetrics Study Guide, 24e 及 principles of genetics fourth edition 47,XXY—Klinefelter Syndrome 是最常見的性聯染色體異常 (A) 45,X—Turner Syndrome This is the only monosomy compatible with life. However, it is also the most common aneuploidy in abortuses and accounts for 20 percent of first-trimester losses. The prevalence of Turner syndrome is approximately 1 per 5000 live births or 1 per 2500 girls	維持原答案(C)

			9週(104 平 0 月 15 日)
考科	題號	答覆釋疑	釋疑結果
		(B) 47,XXX Approximately 1 in 1000 female infants has an additional X chromosome—47,XXX. (C)47,XXY—Klinefelter Syndrome This is the most common sex chromosome abnormality. It occurs in approximately 1 per 600 male infants. (D) 47,XYY This aneuploidy occurs in approximately 1 in 1000 male infants.	
	49	根據 Vander 第 12 版英文版課文 P418,About 50 percent of the total body iron is in hemoglobin, 25 percent is in other hemecontaining proteins (mainly the cytochromes) in the cells of the body, and 25 percent is in liver ferritin. 因此 50%全身含鐵量位於紅血球 、25% 全身含鐵量位於hemecontaining proteins(主要細胞色素)而 25% 全身含鐵量是以 ferritin 方式儲存於肝臟。	維持原答案(C)

