

國立中山大學 113 學年度學士後醫學系招生考試試題答案疑義釋疑公告

科目	題號	釋疑答覆	釋疑結果
普通生物及生化概論	10	Which of the following is true soon after a meal? 題目是” soon after a meal” not “after a meal”. Glucagon will be release after the lowering of blood sugar. So the answer remains the same.	The original answer (E) is correct
	15	題目中選項(B)之敘述並不正確；而選項(D)之正向回饋與負向回饋之敘述，兩者倒置，亦不正確。其他三選項亦不正確。	本題送分
	18	Cytochrome b and cytochrome c are iron containing proteins required for redox reactions in electron transport chain. However, the energy compounds NADH and FADH <sub>2</sub> do not contain iron. Indeed, iron is an important cofactor for many protein complexes, but not all of the proteins require iron for the function. Thus, not all sites are affected by deficiency of iron.	The original answer (A) is correct
	26	During intense physical activity, glucose undergoes anaerobic metabolism in skeletal muscles, leading to the production of lactate. This lactate is then released into the bloodstream and taken up by the liver, where it serves as the primary substrate for gluconeogenesis via the Cori cycle. While pyruvate is an intermediate in the gluconeogenic pathway, it is not the primary compound utilized for gluconeogenesis after intense exercise; instead, lactate is the major gluconeogenic precursor in this context.	The original answer (D) is correct
	28	In the de novo biosynthesis pathway, orotate undergoes conversion into UTP and CTP. Subsequently, both CDP and UDP can be transformed into dTMP. Both dTMP (thymidine monophosphate) and CMP (cytidine monophosphate) are utilized in nucleotide synthesis. Notably, unlike other deoxyribonucleotides, thymidine monophosphate often lacks the "deoxy" prefix in its nomenclature. While dTMP accurately abbreviates deoxythymidine monophosphate, the abbreviation TMP is also acceptable.	The original answer (B) is correct
	41	According to CAMBELL BIOLOGY 9 <sup>th</sup> edition, page 221 Fig. 9.15. The Oxidative Phosphorylation is comprised of electron transport chain and chemiosmosis that produce a total yield of 32 ATP. 根據《CAMBELL BIOLOGY》第9版，第221頁圖9.15。氧化磷酸化包括電子傳遞鏈和化學滲透，總共產生32個ATP。	The original answer (B) is correct
	42	本題如考生所述答案確實不明，氫離子(proton/hydrogen ion)的梯度驅動ATP合成確實是較正確之答案。	(A)或(E)均給分

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普通生物及生化概論	49	<p>生物科學文獻中 “require” 翻譯為必要，因此題目本意為測試學生是否了解補體系統是否要必須依賴抗體才能對病原體產生作用，實際上補體系統可以在有抗體或沒有抗體的狀況下運作，因此答案 A 為非，故選 A。</p> <p>In scientific literature, the word "require" often imply necessity, similar to "must." When used, it typically indicates that a certain condition, component, or factor is essential for a process to occur. For example, if a biological process is described as requiring a certain enzyme, it means that the process cannot proceed without that enzyme.</p>	The original answer (A) is correct
	64	<p>Fumarate is intermediate metabolite in citric acid cycle, while aspartate can be converted simply by deamination to oxaloacetate, which is another intermediate metabolite in citric acid cycle. Both of them are directly involved in urea cycle as well.</p> <p>Citrulline and argininosuccinate are intermediate products in urea cycle. However, citrulline and argininosuccinate are not much involved in citric acid cycle.</p>	The original answer (E) is correct
	90	<p>The synthesis of ATP is coupled to, not directly linked to the oxidation of NADH.</p> <p>“Obligate to” only means that they have upstream to downstream relation. The ATP synthesis in electron transport chain (ETC) requires proton gradient and ATP synthase, indicating it is indirectly linked to the oxidation of NADH.</p>	The original answer (A) is correct