

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	國文	考試日期	100/6/19	頁碼/總頁數	1/6
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## 一、選擇題（單選題，共 35 題，每題 2 分，共 70 分。答錯 1 題倒扣 0.5 分，倒扣至本大題零分為止。未作答時，不給分亦不扣分）

下列短文，摘錄自姚鼐《惜抱軒文集·李斯論》，請閱讀後回答第 1 與第 2 兩題：

且夫人有為善而受教於人者矣，未聞為惡而必受教於人也。荀卿述先王而頌言儒效，雖間有得失，而大體得治世之要，而蘇氏以李斯之害天下罪及於卿，不亦遠乎？行其學而害秦者，商鞅也；捨其學而害秦者，李斯也。商君禁遊宦，而李斯諫逐客，其始不同術也，而卒出於同者，豈其本志哉？

- 「以李斯之害天下罪及於卿，不亦遠乎？」姚鼐意謂：  
(A) 荀卿受到李斯牽連，所受的刑罰實在太大了  
(B) 李斯之所以危害天下，與拜荀子為師毫不相干  
(C) 李斯拜荀卿為師一事時隔久遠，世人已不復記憶  
(D) 李斯的罪行應該追溯及李斯拜荀卿為師一事。
- 「行其學而害秦者，商鞅也；捨其學而害秦者，李斯也。」可知兩人的差異在於：  
(A) 對待所學的態度不同 (B) 天資高下不同  
(C) 出身背景不同 (D) 對法家思想見解不同。
- 下列何人是屬於先秦九流十家中的雜家？  
(A) 呂不韋 (B) 公孫龍子 (C) 申不害 (D) 鄒衍。
- 「尉遲」是一個複姓。「尉遲」的「尉」和下列那一字同音？  
(A) 「蔚」為奇觀 (B) 「瑜」亮情節 (C) 官拜都「尉」 (D) 「禦」侮。
- 「瓜熟蒂落」、「水到渠成」其思考的脈絡為何？  
(A) 愛護自然 (B) 新陳代謝 (C) 人文化成 (D) 因果關係。
- 「飯疏食，飲水，曲肱而枕之，樂亦在其中矣。」句中「飯」、「食」、「曲」、「枕」四字，何者之詞性與其他三者不同？  
(A) 飯 (B) 曲 (C) 食 (D) 枕。
- 《史記·魏公子列傳》：「魏王見公子，相與泣，而與上『將』軍印綬公子，公子遂『將』。魏安釐王三十年，公子使使遍告諸侯。諸侯聞公子『將』，各遣『將』『將』兵救魏。」上述文字中有五個「將」字，作動詞用的有幾個？  
(A) 五個 (B) 四個 (C) 三個 (D) 兩個。
- 皇帝制度是我國政治史上重要的一頁，因此我國的詞語系統中，有許多與之相關。下列詞語中，何者不是皇帝的自稱？  
(A) 朕 (B) 孤 (C) 不穀 (D) 御。

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9. 網路上流傳一則名曰【杯子】的笑話：

美國人：「你看過木頭做的杯子嗎？」

中國人：「沒有！」

美國人：「那為什麼你們中國字的『杯』是木字旁？」

中國人：「『杯』字旁邊不是有個『不』字嗎！也就是說它不是木頭做的。」

如果照笑話裏「中國人」的解釋，他顯然是將「杯」字誤解為六書中的哪一種？

- (A) 形聲 (B) 象形 (C) 會意 (D) 轉注。

閱讀下列短文後，請回答第 10 至第 13 題：

三蟲相與訟，一蟲過之，曰：「訟者奚說？」

三蟲曰：「爭肥饒之地。」一蟲曰：「若亦不患臘之至而茅之燥耳，若又奚患？」

於是乃相與聚嘍其血而食之。

處懼，人乃弗殺。（韓非《韓非子》）

10. 本文之主旨，意在說明下列那一種道理？

- (A) 人善被人欺，豬真不幸 (B) 團結力量大，人定勝天  
(C) 短視近利禍至無日矣 (D) 人怕出名豬怕肥。

11. 文章中的「若亦不患臘之至而茅之燥耳，若又奚患？」兩個「若」字之用法與下列何者相同？

- (A) 「若」有意，似無情 (B) 「若」到江南趕上春，千萬和春住  
(C) 兩情「若」是久長時，又豈在朝朝暮暮 (D) 「若」勝我，我不勝「若」。

12. 本文之寓意與下列何者相近？

- (A) 塞翁失馬焉知非福？ (B) 唇亡齒寒  
(C) 見微知著 (D) 鷸蚌相爭漁翁得利。

13. 「處懼，人弗殺。」是因為那一個原因？

- (A) 豬被蟲子吸血，所以變瘦了 (B) 豬恐懼被殺，因此哀號而免死  
(C) 三蟲終於因為吸血過多而死 (D) 豬因為失血過多而死。

14. 關於啟封詞，下列何者不正確？

- (A) 「台啟」用於晚輩 (B) 「道啟」用於師長  
(C) 「福啟」用於祖父母輩 (D) 「禮啟」用於居喪的人。

15. 「他總是能讓她笑，彷彿這一生所有的笑容都上了鎖，只為被他的一言一語開啟。如今連他的妻都能讓她笑。多好。婚禮開始，台上在進行一貫的儀式，她出發前用過簡單的晚餐，不怎麼餓，只是慢慢喝著紅酒。同桌好幾個單身男子，悶悶的吃著冷盤，沒有人嘗試跟她聊天。她知道自己一向看起來都非常不友善。只有他才覺得自己像火焰。」（薇達〈她出席了他的婚禮〉）從這段文字，我們可以知道「她」對「他」：

- (A) 仍有著深深的愛戀 (B) 早已死心絕望  
(C) 充滿怨恨 (D) 總覺得自己很可笑。

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16. 「灌陽唐景崧以翰林分巡臺灣道，方獎掖風雅，歲試文生，拔其尤者，讀書海東書院，厚給膏火。」（《台灣通史·丘逢甲傳》）「厚給膏火」意謂：
- (A) 給老師很高的薪俸 (B) 供給學生優厚的求學費用  
(C) 給學生很多指導 (D) 半夜仍燈火通明。
17. 「現代人因為寂寞的緣故，特別熱中於『談』情『說』愛；然而又因為吝嗇的緣故，情感都構築在薄弱的基礎上。有時候，承受陌生人的好意，也會忍不住自問，我曾經替不相干的旁人做過什麼事？」「人與世界的諸多聯繫，其實常常是與陌生人的交接，而對於這些人，無欲無求，反而能夠表現出真正的善意。」（張曼娟〈人間情分〉）這兩段文句的重點在強調：
- (A) 現代人太喜歡談戀愛 (B) 沒有目的的付出才真正感人  
(C) 人與人之間應該多接觸 (D) 我們應該努力為陌生人付出。
18. 下列敘述何者不正確？
- (A) 「宅中有園，園中有屋，屋中有院，院中有樹」，是用頂真修辭法寫成之句子  
(B) 「白髮三千丈」，是誇飾的修辭  
(C) 「桃花依舊笑春風」，是將物擬人  
(D) 「出師未捷身先死，長使英雄淚滿襟」，是對偶的寫法。
19. 書信的稱謂用語，下列何者正確？
- (A) 思及先兄、先弟在世情景，如在眼前  
(B) 舍姊舍妹北上就學，但常返家團聚，尚無不便  
(C) 關於此事，敝業師不願多表意見，只說社會自有公論  
(D) 昨日前往寒舍，閣下盛情款待，誠意感人。
20. 關於作者跟作品及其文學成就的地位敘述，下列何者不正確？
- (A) 連橫／台灣通史／充滿民族志節，堅持「台灣人不可不知台灣事」  
(B) 鍾理和／笠山農場／倒在血泊裡的筆耕者  
(C) 吳濁流／亞細亞的孤兒／臺灣新文學之父  
(D) 楊喚／楊喚全集／臺灣兒童文學的先驅。
21. 儒家的修養原則，偏於內向的自我省察功夫。但下列何者與這樣的省察路徑無關？
- (A) 仁遠乎哉？我欲仁，斯仁至矣（《論語》）  
(B) 生於憂患，死於安樂（《孟子》）  
(C) 失諸正鵠，反求諸其身（《中庸》）  
(D) 禮聞來學，不聞往教。（《禮記》）
22. 有關「玄學」的論述，下列何者不正確？
- (A) 是流行於魏晉時期的一種思潮  
(B) 受漢代今古文之爭及陰陽五行等舊說影響甚深  
(C) 思想上傾向老莊的道家思想，反對傳統儒家名教的束縛  
(D) 主要代表人物有何晏、王弼、阮籍、嵇康、向秀、郭象等。

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23. 有關我國史學典籍的敘述，下列何者不正確？
- (A) 《史記》為司馬遷所作，創立我國正史以「紀傳體」寫作的體例
  - (B) 《戰國策》非一人一時所作，今所見為北宋曾鞏、南宋姚宏校補，書中內容反映了戰國時代的社會風貌及當時士人的精神風采
  - (C) 《史通》為劉知幾所作，為我國第一本史評類專著。強調史學專業，主張文人修史
  - (D) 《文史通義》為章學誠所作，是建立我國史學理論體系的重要著作。主張史家應具備「才、學、識、德」，文人不應修史。
24. 關於公文，下列何者正確？
- (A) 公文的主體是正文，一般分為「主旨」、「說明」及「辦法」三段，其中「說明」及「辦法」等段名可視需要變通
  - (B) 依現行《公文程式條例》，分為令、呈、咨、函、公告、其他，唯主旨必須分段詳述
  - (C) 公文是處理公務的文書，發文與收文者雙方都必須是政府機關
  - (D) 對上級機關或首長的期望語可以用「請查照」。
25. 有關古典小說的敘述，下列何者不正確？
- (A) 《世說新語》原名《世說》，作者為劉義慶，是魏晉時期著名的筆記小說
  - (B) 章回小說盛行於明、清，由話本發展而來，多以白話長篇為主
  - (C) 《聊齋誌異》是清朝著名的文言短篇志怪小說，作者蒲松齡常透過書中鬼、狐、仙、怪的描寫諷刺人性
  - (D) 《老殘遊記》善於描寫景物，刻畫人性，是清末著名的諷刺章回小說。
26. 關於我國近現代文學作家作品的說明，下列何者不正確？
- (A) 張愛玲是近現代知名女性作家，作品有《色，戒》、《一生緣》等
  - (B) 徐志摩是現代詩代表作家之一，著名詩作有〈再別康橋〉、〈偶然〉等
  - (C) 朱自清，字佩弦，著有學術著作《經常常談》及散文集《背影》等
  - (D) 陳之藩的散文作品帶有透徹的理性，取材常由生活體驗出發，融入豐富的人生閱歷，風格極為突出。
27. 關於二十四節氣的介紹，下列何者不正確？
- (A) 「穀雨」是春天的最後一個節氣，稻田裡的秧苗正需要豐富的雨水來滋養，因此命名「穀雨」
  - (B) 「芒種」是典型的夏季節氣，此時適合開始種植芒果
  - (C) 「處暑」是秋天的節氣，此時天氣還是很炎熱，故稱「處暑」
  - (D) 「小雪」是冬季的第二個節氣，黃河流域開始下雪，雪量並不多，所以稱「小雪」。
28. 古人對動植物的認識，常根據直觀想像，賦予動植物以倫理的意義，而形成了中國文化的特色。以下以動植物為喻的成語或典故，何者不正確？
- (A) 美惡不稱，可謂「狗尾續貂」；貪心不足，可稱「蛇欲吞象」
  - (B) 勢弱難敵，可謂「投鼠忌器」；生命短暫，乃曰「燕巢飛幕」
  - (C) 「瓜田李下」，言事避嫌疑；「薰蕕異器」，言賢否有別
  - (D) 「煮豆燃豆箕」，喻手足相殘；「二桃殺三士」，指借刀殺人。

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29. 「『頭角崢嶸』的各色甲蟲，入夜裡亮起燈，牠們便攀附紗窗上伺機『棄暗投明』。」（黃碧端〈蜚螭過客〉）『』中的成語原意並非如此，但作者巧妙引申出「言外之意」。下列何者不是這種用法？
- (A) 現代醫學進步，用動物器官移植人體的技術日漸成熟，或許有一天會出現「狼心狗肺」的人  
 (B) 現代公寓大樓櫛比鱗次，家家戶戶只要一打開門，就可以看見對面的鄰居，真可謂「門當戶對」  
 (C) 京都太嘈雜了，面壁十年的九州學子，都曾嚮往過這種嘈雜。結果，「滿腹經綸」被車輪馬蹄搗碎，脆亮的吆喝填滿了疏朗的胸襟  
 (D) 老李退休後，開了一家園藝店，逢人便說自己現在的職業是「拈花惹草」。
30. 孔子曰：「入其國，其教可知也。其為人也：溫柔敦厚，《詩》教也；□□□□，《書》教也；□□□□，《樂》教也；□□□□，《易》教也；恭儉莊敬，《禮》教也；□□□□，《春秋》教也。」（《禮記·經解》）上文「□□□□」依序應填入：
- (A) 疏通知遠、廣博易良、絜淨精微、屬辭比事  
 (B) 疏通知遠、屬辭比事、絜淨精微、廣博易良  
 (C) 屬辭比事、絜淨精微、疏通知遠、廣博易良  
 (D) 廣博易良、疏通知遠、絜淨精微、屬辭比事。
31. 凡是在語文中，有兩個以上的意象，有輕重大小，淺深親疏等比例，在說話或行文時，依序層層遞進，叫做「層遞」。若依此定義，則下列何者沒有運用「層遞」修辭？
- (A) 饒你多少豪情俠氣，怕也經不起三番五次的風吹雨打。一打少年聽雨，紅燭昏沉。二打中年聽雨，客舟中，江闊雲低。三打白頭聽雨在僧廬下，這便是亡宋之痛，一顆敏感心靈的一生，樓上，江上，廟裡，用冷冷的雨珠子串成（余光中〈聽聽那冷雨〉）  
 (B) 上士聞道，勤而行之；中士聞道，若存若亡；下士聞道，大笑之，不笑不足以為道（《老子》）  
 (C) 做不成天空的星子，就做山上的燎火吧！做不成山上的燎火，就做屋裏的一盞燈吧（張秀亞〈持燈者〉）  
 (D) 刻妳的名字，刻妳的名字在樹上，刻妳的名字在不凋的生命樹上。（紀弦〈妳的名字〉）
32. 「離散天下之子女，以博我一人之產業，曾不慘然。」（黃宗義〈原君〉）句中的「曾」字義與下列選項相同的是：
- (A) 雖信美而非吾土兮，「曾」何足以少留（王粲〈登樓賦〉）  
 (B) 生王之頭，「曾」不若死士之壘也（《戰國策》）  
 (C) 同是天涯淪落人，相逢何必「曾」相識（白居易〈琵琶行并序〉）  
 (D) 所以動心忍性，「曾」益其所不能。（《孟子》）
33. 「風來疏竹，風過而竹不留聲；雁度寒潭，雁去而潭不留影；故君子事來而心始現，事去而心隨空。」（洪自誠《菜根譚》）這段話的涵義與下列何者最接近？
- (A) 帝王將相如鏡花水月，虛幻不實  
 (B) 浪再高也在船底，山再高也在腳底  
 (C) 快樂取決於自己的心念，所以不要過度執著  
 (D) 即使再渺小平凡，也可以有偉大的貢獻。

背面還有試題

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	國文	考試日期	100/6/19	頁碼/總頁數	6/6
說明：一、請檢查本試題之頁碼/總頁數，如有缺頁應立即舉手，請監試人員補發。 二、選擇題答案使用 2B 鉛筆在答案卡上作答。未於答案卡內作答者，不予計分。 三、作文題請以黑色或藍色筆（不得使用鉛筆）書寫於答案卷上。未於答案卷內作答者，不予計分。 四、本試題必須隨同答案卷、答案卡一併繳回，不得攜出試場。					

34. 「一燈如花，一室如斗，一蟲如泉，一士如僧，歐陽脩自號六一，我若自號四一，還勝他二贅。但名號自來是文人的把戲，太上無名，何用名為？我是森林中的一株樹，小溪中的一滴水，原野中的一棵草，田園中的一根苗，天地間的一個生物，我融溶在整體中，安用名號分別為？」（陳冠學《田園之秋》）上列文句，其意境與下列何者相同？
- (A) 不以物喜，不以己悲  
(B) 醉翁之意不在酒，在乎山水之間  
(C) 風無雌雄之異，而人有遇不遇之變  
(D) 心凝形釋，與萬化冥合。
35. 下列詩句中的季節，何者不是「春天」？
- (A) 白日放歌須縱酒，青春作伴好還鄉（杜甫〈聞官軍收河南河北〉）  
(B) 兒童散學歸來早，忙趁東風放紙鳶（高鼎〈村居〉）  
(C) 沾衣欲濕杏花雨，吹面不寒楊柳風（志南〈無題〉）  
(D) 忽如一夜春風來，千樹萬樹梨花開。（岑參〈白雪歌送武判官歸京〉）

## 二、作文題（共 30 分）

「癌症高居國人十大死因第一名，但實際上被癌症嚇死的人往往比被癌症殺死的人還多，因為大部分的人都不了解怎樣面對癌症。一個專業、理性又有愛心的癌症醫師，用親身經歷告訴病人、家屬、甚至醫護人員，其實癌症並不可怕，死亡更不可怕，可怕的是對癌症的無知與因無知所帶來的恐懼。」（博客來網路書店《醫生也醫死》內容簡介）

「原先想要當個有名氣的抗癌專家，卻因遇見許多『困苦流離』的癌末病患，所以決定放下身段，重新學習『安寧照顧』。為了營造一處人性化的癌症病房，特別在署立新竹醫院內成立了『腫瘤及安寧病房』，和一群可愛的護理人員共同執行『換醫護人員的腦袋而不必更動病人床位』的理念，也就是根據病人的病程，隨時修正醫療照顧的模式，該積極時就給予抗癌治療，該保守時就給予緩和醫療，之間的取捨可以根據不同的個案隨時做修正。他不只是一位看『病』的醫師，更是一位看『病人』的醫師。」（博客來網路書店《醫生也醫死》作者簡介）

看完上述兩段文字後，請以「看病與看病人」為題，作文一篇，字數不限。

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

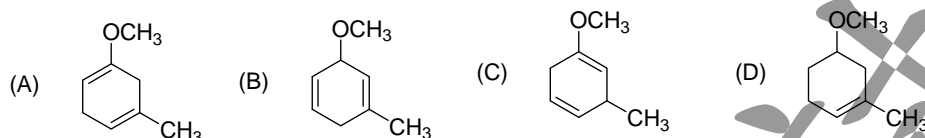
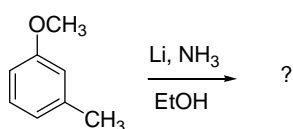
<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	1/11
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選擇題 (單選題，共 50 題，每題 2 分，共 100 分。答錯 1 題倒扣 0.5 分，倒扣至零分為止。未作答時，不給分亦不扣分)

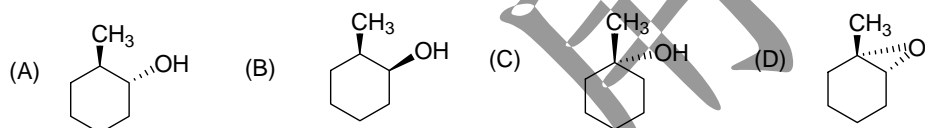
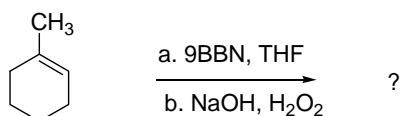
Useful information:

Value, X	2	3	5	7	10	100
ln X	0.6931	1.0986	1.6094	1.9459	2.3026	4.6052

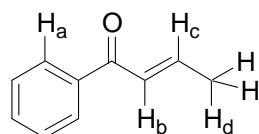
1. What product would be obtained from the following reaction?



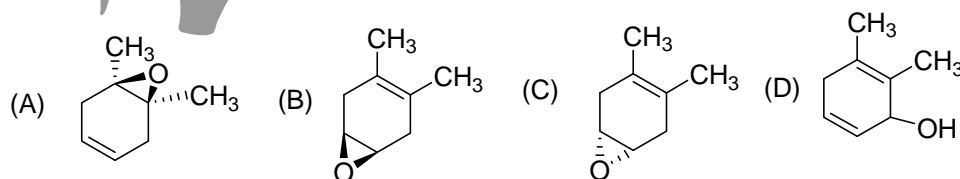
2. What product would be obtained from the following reaction?



3. There are 4 different hydrogens in the compound described below. Which one is the most acidic hydrogen?



4. What product would be obtained from the following reaction?



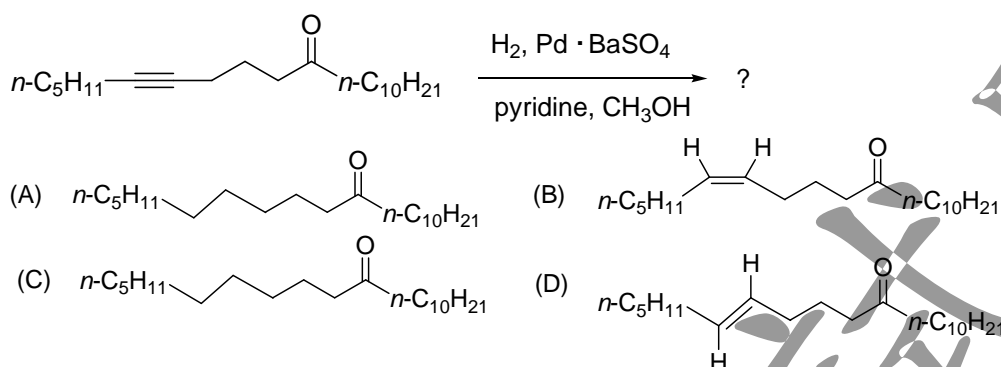
背面還有試題

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

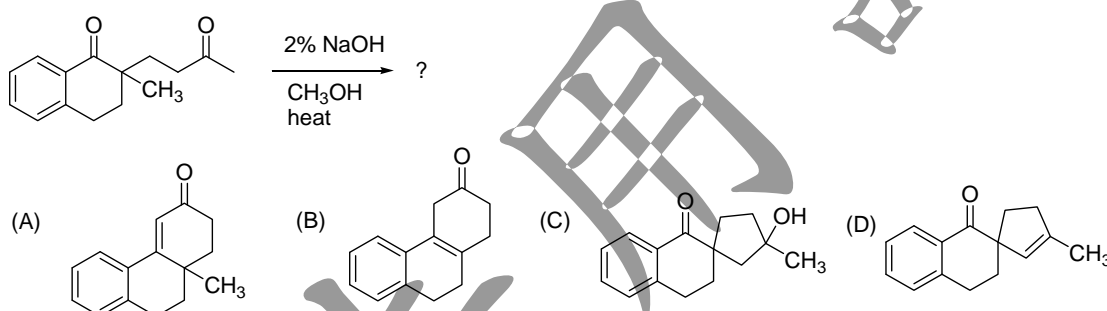
<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	2/11
說明：一、請檢查本試題之頁碼/總頁數，如有缺頁應立即舉手，請監試人員補發。 二、選擇題答案使用 2B 鉛筆在答案卡上作答，未於答案卡內作答者，不予計分。 三、本試題必須隨同答案卡一併繳回，不得攜出試場。					

5. In the following reaction,  $2\text{H}_2\text{O}_2(\text{l}) \longrightarrow 2\text{H}_2\text{O}(\text{l}) + \text{O}_2(\text{g})$ , hydrogen peroxide functions as
1. an oxidizing agent.
  2. a reducing agent.
  3. an acid.
- (A) 1 only                      (B) 2 only                      (C) 3 only                      (D) 1 and 2 only

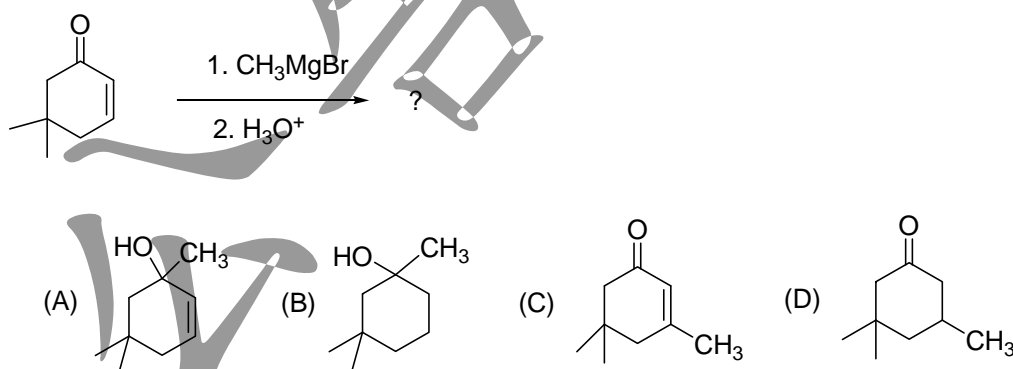
6. What major product would be obtained from the following reaction?



7. What final product would be obtained from following reaction?



8. What final product would be obtained from following reaction?



9. Which one of the following contains both ionic and covalent bonds?

- (A) NaCl                      (B) NaOH                      (C) HOH                      (D) SiO<sub>2</sub>

10. Based on molecular structure, which of the following substances should have the lowest boiling point?

- (A) H<sub>2</sub>Te                      (B) H<sub>2</sub>Se                      (C) H<sub>2</sub>S                      (D) H<sub>2</sub>O

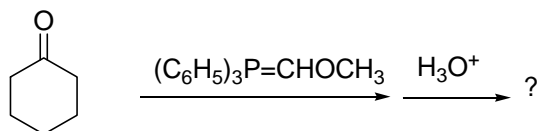


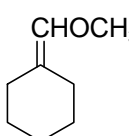
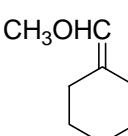
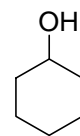
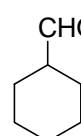
# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	化學 (含普通化學、有機化學)	考試日期	100/6/19	頁碼/總頁數	3/11
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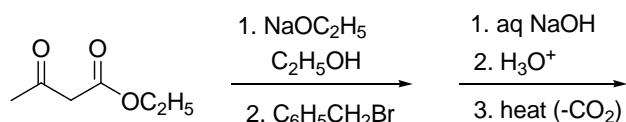
說明：一、請檢查本試題之頁碼/總頁數，如有缺頁應立即舉手，請監試人員補發。  
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 三、本試題必須隨同答案卡一併繳回，不得攜出試場。

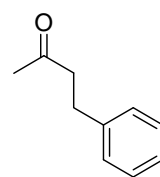
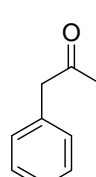
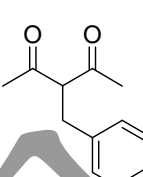
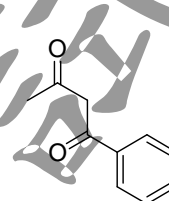
11. What final product would be obtained from following reaction?



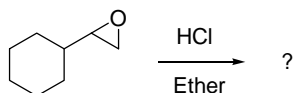
- (A)      
 (B)      
 (C)      
 (D) 

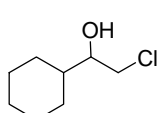
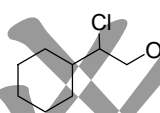
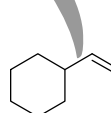
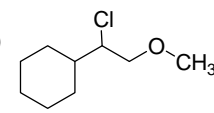
12. What major product would be obtained from following reaction?



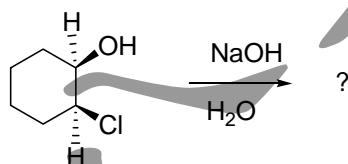
- (A)      
 (B)      
 (C)      
 (D) 

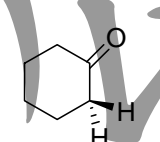
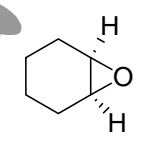
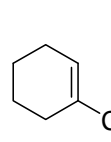
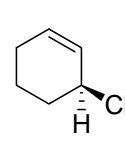
13. What major product would be obtained from following reaction?



- (A)      
 (B)      
 (C)      
 (D) 

14. What major product would be obtained from following reaction?



- (A)      
 (B)      
 (C)      
 (D) 

15. How many orbitals have the following quantum numbers:  $n = 3, l = 2, m_l = -2$ ?

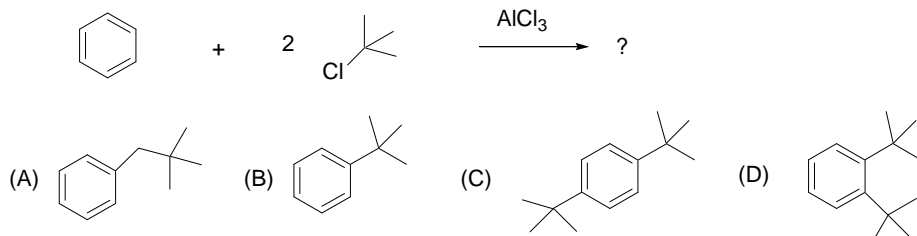
- (A) 1                                      (B) 3                                      (C) 5                                      (D) 7

背面還有試題

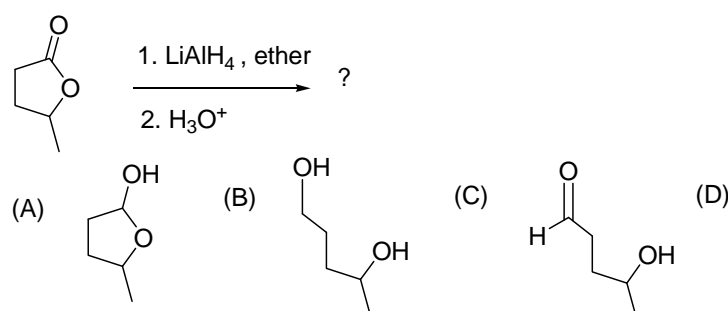
# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	4/11
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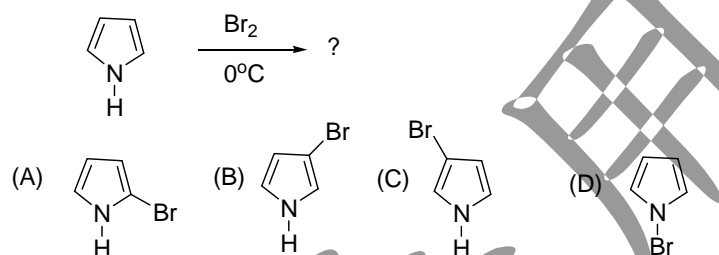
16. What major product would be obtained from following reaction?



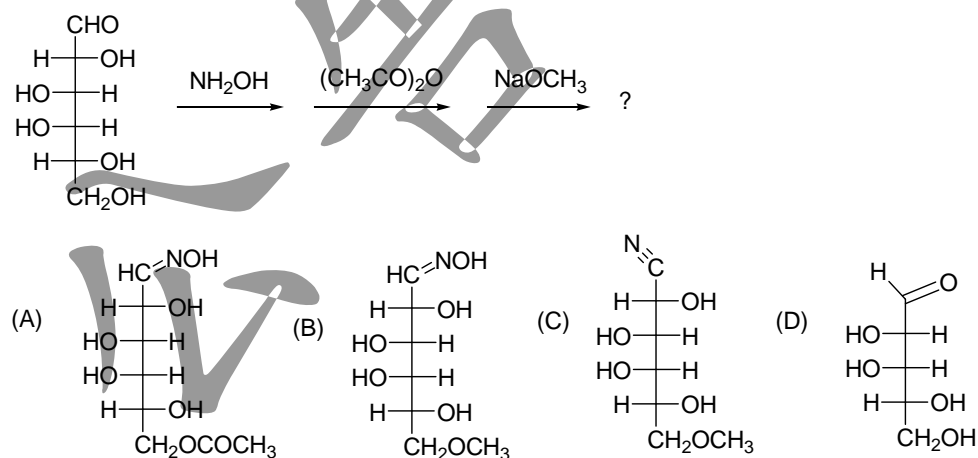
17. What major product would be obtained from following reaction?



18. What major product would be obtained from following reaction?



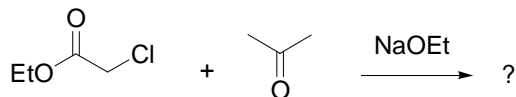
19. What final product would be obtained from following sequential reactions?

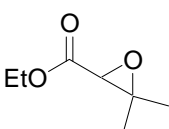
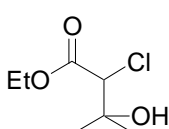
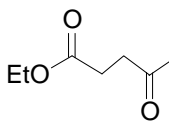
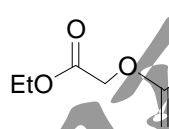


# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

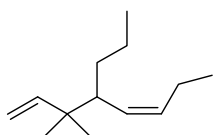
<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	5/11
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20. What final product would be obtained from following reaction?



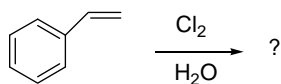
- (A)  (B)  (C)  (D) 

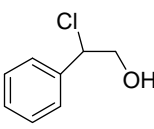
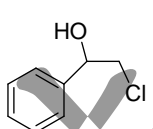
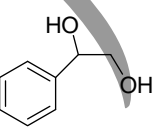
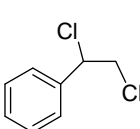
21. Which one is the correct IUPAC name for the following compound?



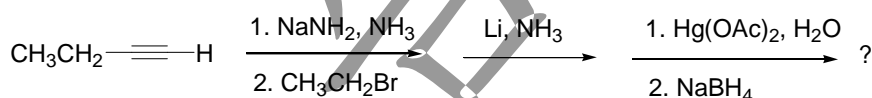
- (A) (E)-3,3-Dimethyl-4-propylocta-1,5-diene  
 (B) (E)-6,6-Dimethyl-5-propylocta-3,7-diene  
 (C) (Z)-3,3-Dimethyl-4-propylocta-1,5-diene  
 (D) (Z)-3,3-Dimethyl-4-propylhepta-1,5-diene

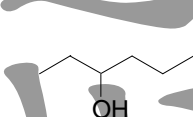
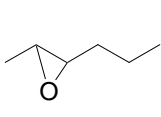
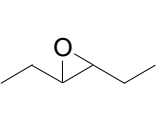
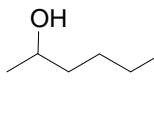
22. What major product would be obtained from following reaction?



- (A)  (B)  (C)  (D) 

23. What final product would be obtained from following reaction?



- (A)  (B)  (C)  (D) 

24. Which statements describe the bonding in the water molecule?

1. polar covalent
2.  $\pi$  bond
3.  $\text{sp}^3$  hybridization

- (A) 1 only                      (B) 1 and 2 only                      (C) 1 and 3 only                      (D) 2 and 3 only

背面還有試題

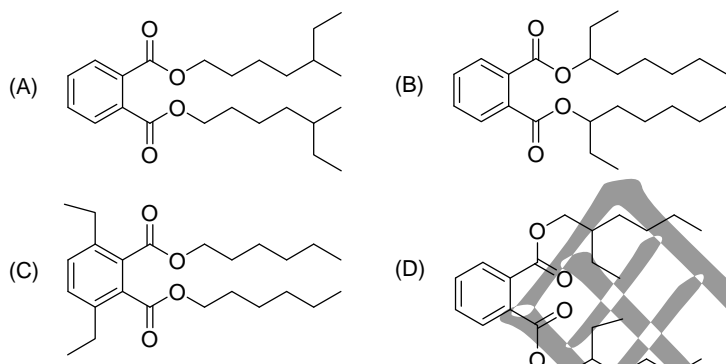
# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	6/11
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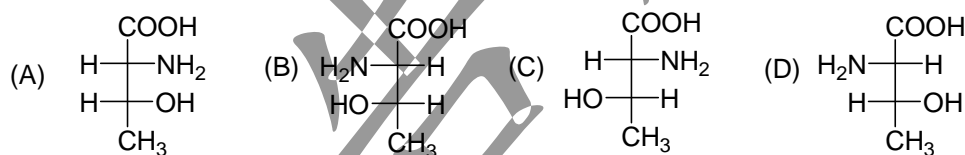
25. In the following S<sub>N</sub>2 reaction which one would be predicted to be the fastest?

- (A)  $\text{H}_2\text{O} + \text{CH}_3\text{Br} \longrightarrow \text{HOCH}_3 + \text{HBr}$
- (B)  $\text{OH}^- + \text{CH}_3\text{Br} \longrightarrow \text{HOCH}_3 + \text{Br}^-$
- (C)  $\text{H}_2\text{S} + \text{CH}_3\text{Br} \longrightarrow \text{HSCH}_3 + \text{HBr}$
- (D)  $\text{SH}^- + \text{CH}_3\text{Br} \longrightarrow \text{HSCH}_3 + \text{Br}^-$

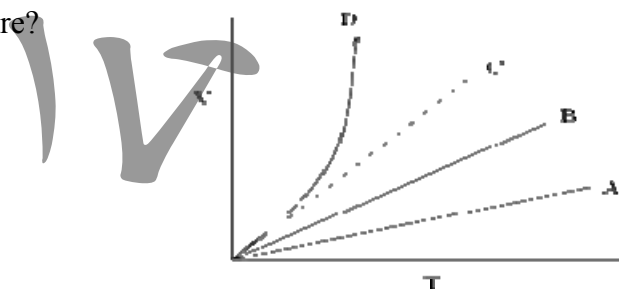
26. Bis(2-ethylhexyl)phthalate, commonly abbreviated DEHP, is an organic compound with the formula C<sub>6</sub>H<sub>4</sub>(C<sub>8</sub>H<sub>17</sub>COO)<sub>2</sub>. It is sometimes called dioctyl phthalate and abbreviated DOP. Being produced on a massive scale by many companies, it has acquired many names and acronyms, including BEHP and di-2-ethylhexyl phthalate. Recently, the illegal use of the plasticizer DEHP in clouding agents for use in food has been reported in Taiwan, what is the structure of DEHP?



27. In the following four stereoisomers of 2-amino-3-hydroxybutanoic acid which chiral carbons have 2R,3S configuration?



28. The volume-temperature plots below were made at different values of constant pressure while the number of moles of gas in each experiment remained the same. Which curve represents measurements at highest pressure?

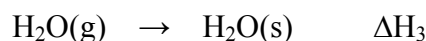
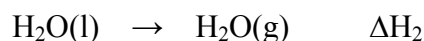
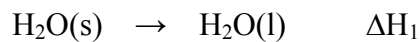


- (A) A                                      (B) B                                      (C) C                                      (D) D

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	7/11
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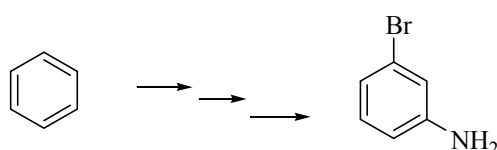
29. Consider the following changes:



Using Hess' Law, the sum all of  $\Delta H_1 + \Delta H_2 + \Delta H_3$  is

- (A)  $> 0$  (B)  $= 0$   
 (C)  $< 0$  (D) sometimes  $> 0$  and sometimes  $< 0$ .

30. Choose the best series of reactions (A-D) for the synthesis of 3-bromoaniline from benzene shown below.



- (A)  $\text{Benzene} \xrightarrow[\text{FeBr}_3]{\text{Br}_2} \text{Bromobenzene} \xrightarrow[\text{H}_2\text{SO}_4]{\text{HNO}_3} \text{Nitrobenzene} \xrightarrow[\text{Ni}]{\text{H}_2} \text{Aniline} \xrightarrow{\text{Br}_2} \text{3-bromoaniline}$
- (B)  $\text{Benzene} \xrightarrow[\text{H}_2\text{SO}_4]{\text{HNO}_3} \text{Nitrobenzene} \xrightarrow[\text{HCl}]{\text{Fe}} \text{Aminoaniline} \xrightarrow[\text{FeBr}_3]{\text{Br}_2} \text{3-bromoaniline}$
- (C)  $\text{Benzene} \xrightarrow[\text{H}_2\text{SO}_4]{\text{HNO}_3} \text{Nitrobenzene} \xrightarrow[\text{FeBr}_3]{\text{Br}_2} \text{3-bromonitrobenzene} \xrightarrow[\text{HCl}]{\text{Fe}} \text{3-bromoaniline}$
- (D)  $\text{Benzene} \xrightarrow[\text{H}_2\text{SO}_4]{\text{HNO}_3} \text{Nitrobenzene} \xrightarrow[\text{HCl}]{\text{Fe}} \text{Aminoaniline} \xrightarrow[\text{H}_2\text{SO}_4]{\text{HNO}_3} \text{3-bromonitroaniline} \xrightarrow[\text{2. CuBr, HBr}]{\text{1. HNO}_2, \text{H}_2\text{SO}_4} \text{3-bromoaniline}$

31. Which of the following orbital diagrams represents a paramagnetic atom?

- 1s      2s      2p
1.  $\uparrow\downarrow$     $\uparrow\downarrow$     $\circ$     $\circ$     $\circ$
2.  $\uparrow\downarrow$     $\uparrow\downarrow$     $\uparrow$     $\circ$     $\circ$
3.  $\uparrow\downarrow$     $\uparrow\downarrow$     $\uparrow$     $\uparrow$     $\circ$

- (A) 1 and 2 only      (B) 1 and 3 only      (C) 2 and 3 only      (D) 3 only

32. In a certain mountain range, the atmospheric pressure is 608 mmHg. What is the temperature of water boil under these conditions? Some information that may be useful is the following:

$$\ln \frac{P_2}{P_1} = \frac{\Delta H_{\text{vap}}}{R} \left[ \frac{T_2 - T_1}{T_2 T_1} \right], \quad R = 8.314 \text{ kJ}/(\text{K} \cdot \text{mol}); \quad \Delta H_{\text{vap}} = 44.0 \text{ kJ/mol}$$

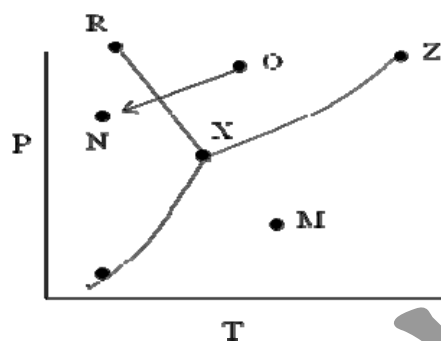
- (A) 94.2 °C      (B) 96.3 °C      (C) 98.4 °C      (D) 99.6 °C

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

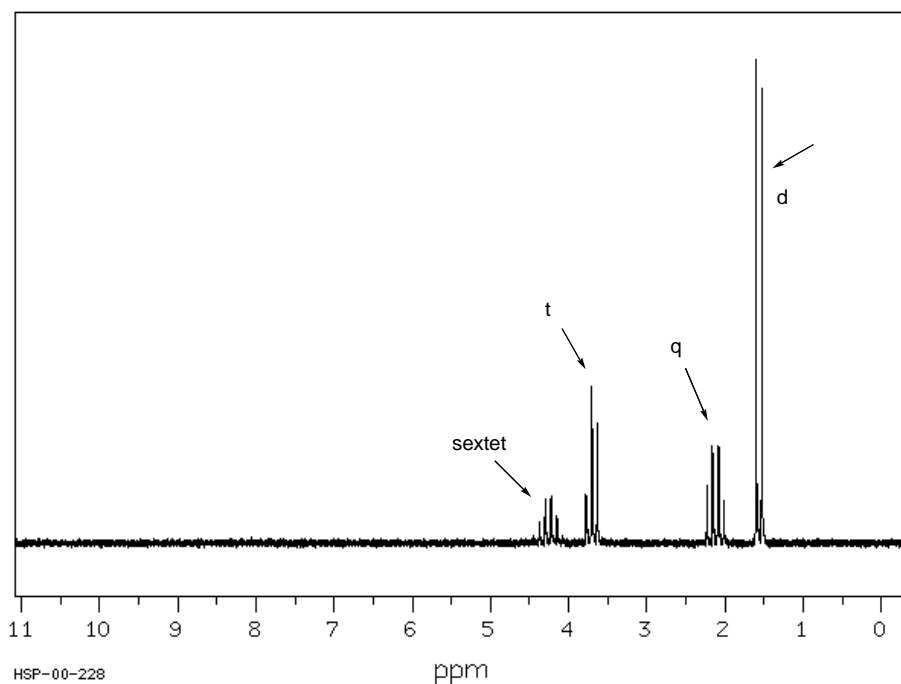
<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	8/11
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33. When  $^{235}_{92}\text{U}$  collides with one neutron, fission occurs, and the products are four neutrons,  $^{90}_{38}\text{Sr}$ , and
- (A)  $^{139}_{54}\text{Xe}$                       (B)  $^{140}_{54}\text{Xe}$                       (C)  $^{141}_{54}\text{Xe}$                       (D)  $^{142}_{54}\text{Xe}$

The phase diagram below is to be used for Questions 34 - 35



34. The highest point to which line XZ can be extended is called the
- (A) normal boiling point                      (B) triple point  
 (C) melting point                              (D) critical point
35. The change from point O to point N corresponds to
- (A) condensation                      (B) evaporation                      (C) freezing                      (D) sublimation
36. Which structure of molecular formula  $\text{C}_4\text{H}_8\text{Cl}_2$  fits the  $^1\text{H}$  NMR spectrum shown below?

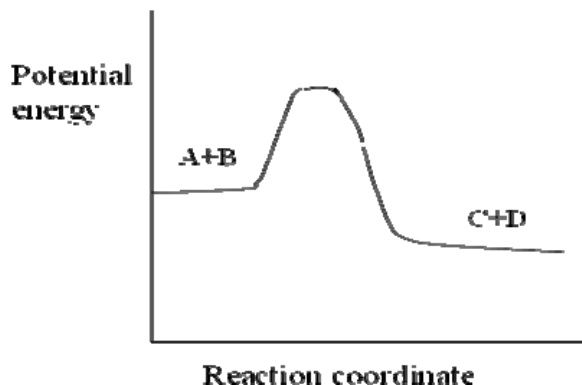


- (A) CC(Cl)C(Cl)C                      (B) ClCCCCCl                      (C) CC(Cl)CCl                      (D) CC(Cl)(Cl)CC

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	9/11
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37. For the system described by the figure below, which statement is **CORRECT**?



- (A) The forward reaction is endothermic
- (B)  $E_a$  for the forward reaction is greater than for the reverse reaction
- (C) The effect of a temperature change is greater for the reverse reaction than for the forward reaction
- (D) A and B are more stable than C and D

38. Which of the following concentrations can change with a change in temperature?

1. molality
2. molarity
3. mole percentage

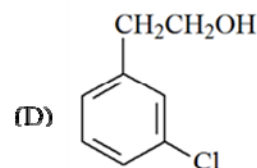
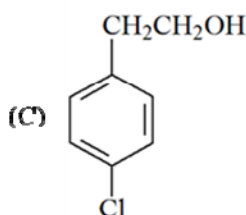
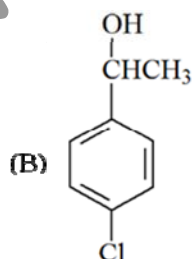
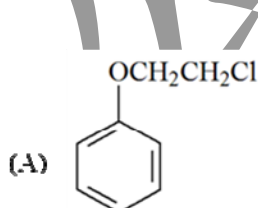
- (A) 1 only                      (B) 2 only                      (C) 3 only                      (D) 1 and 2 only

39. Carbon monoxide is a hazardous air pollutant because it

- (A) reacts with oxygen to form  $\text{CO}_2$
- (B) catalyzes smog formation
- (C) forms a stable complex with hemoglobin
- (D) catalyzes the decomposition of ozone

40. The proton NMR of a compound,  $\text{C}_3\text{H}_9\text{ClO}$ , has the following peaks. Which compound below best fits the data?

- |               |           |
|---------------|-----------|
| broad singlet | 2.00 (1H) |
| triplet       | 2.41 (2H) |
| triplet       | 3.69 (2H) |
| doublet       | 7.02 (2H) |
| doublet       | 7.50 (2H) |

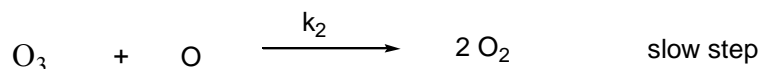
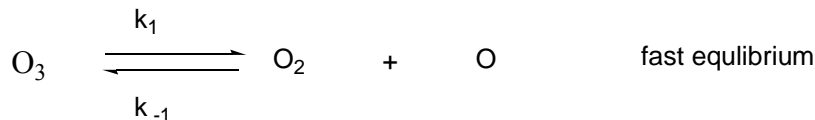


背面還有試題

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

<b>考試科目</b>	<b>化學</b> (含普通化學、有機化學)	<b>考試日期</b>	100/6/19	<b>頁碼/總頁數</b>	10/11
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41. A suggested mechanism for the decomposition of ozone,  $2\text{O}_3 \rightarrow 3\text{O}_2$ , is



According to this mechanism, the rate law will be

(A)  $k_2[\text{O}][\text{O}_3]$

(B)  $\frac{k_1 [\text{O}_2][\text{O}]}{k_{-1} [\text{O}_3]}$

(C)  $\frac{k_1 k_2}{k_{-1}} [\text{O}_3]^2 [\text{O}]$

(D)  $\frac{k_1 k_2 [\text{O}_3]^2}{k_{-1} [\text{O}_2]}$

42. At a given temperature,  $K = 0.020$  for the equilibrium



What is  $K$  for reaction  $\text{Cl}_2(\text{g}) + \text{PCl}_3(\text{g}) \rightleftharpoons \text{PCl}_5(\text{g})$

(A) 0.020

(B) 50

(C) 100

(D) 500

43. The table below lists the solubility product for compounds.

compound	$\text{CaCO}_3$	$\text{PbI}_2$	$\text{AgBr}$	$\text{Fe}(\text{OH})_2$
$K_{\text{sp}}$	$4.8 \times 10^{-9}$	$1.1 \times 10^{-9}$	$5 \times 10^{-13}$	$8 \times 10^{-16}$

Which salt is the most soluble (mol/L) in water?

(A)  $\text{CaCO}_3$

(B)  $\text{PbI}_2$

(C)  $\text{AgBr}$

(D)  $\text{Fe}(\text{OH})_2$

44. The following data were obtained for the reaction

$2\text{A} + \text{B} \longrightarrow \text{products}$		
<u>[A] (mol/L)</u>	<u>[B] (mol/L)</u>	<u>Initial Rate [mol/(L · s)]</u>
0.2	0.1	5
0.2	0.2	20
0.6	0.1	15

What is the order of the reaction with respect to B?

(A) 0

(B) 1/2

(C) 1

(D) 2

45. Which process(es) is (are) most likely to lead to acid rain?

1. pollutants from a copper smelter
2. the burning of coal containing sulfur
3. excessive spraying of herbicides or insecticides

(A) 1 only

(B) 2 only

(C) 3 only

(D) 1 and 2 only

46. Which of the following coordination compounds will immediately form a precipitate when combined with an  $\text{AgNO}_3$  solution?

(A)  $\text{Cr}(\text{NH}_3)_3\text{Cl}_3$

(B)  $\text{K}[\text{Cr}(\text{NH}_3)_2\text{Cl}_4]$

(C)  $\text{Cr}(\text{NH}_3)_2(\text{H}_2\text{O})(\text{Cl}_3)$

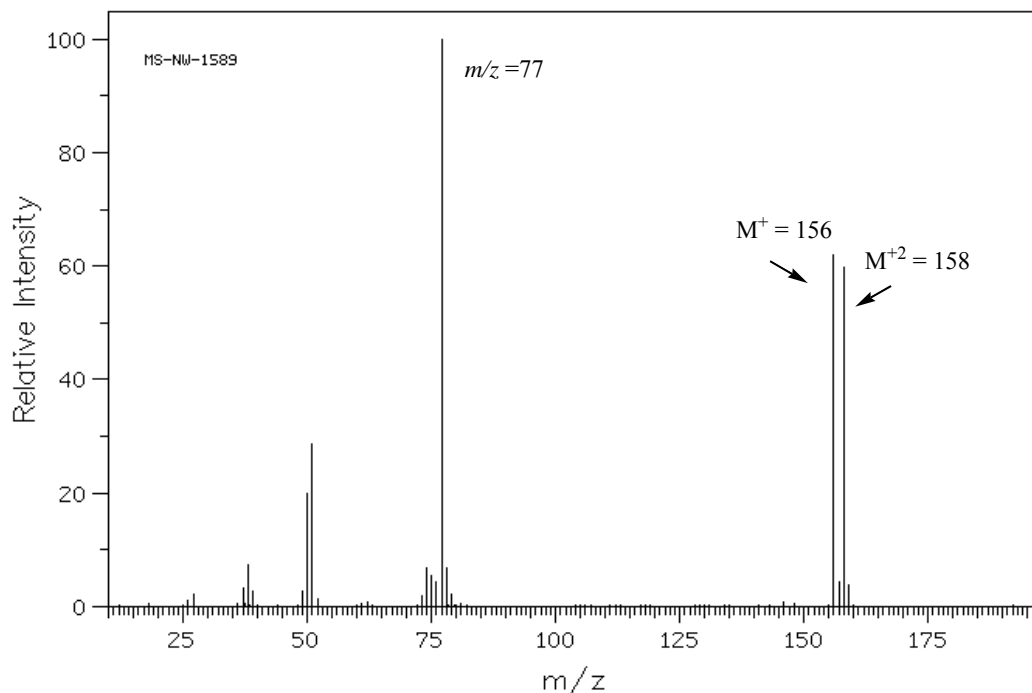
(D)  $[\text{Cr}(\text{NH}_3)_6]\text{Cl}_3$



# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

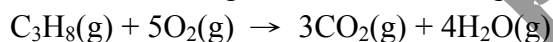
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47. A compound which EI-MS spectrum is shown below, has  $M^+ = m/z$  156,  $M^{+2} = m/z$  158, and  $m/z = 77$  (base peak). What is the possible formula for this compound?



- (A)  $C_5H_{10}Cl$                       (B)  $C_5H_{12}Br$                       (C)  $C_6H_5Cl$                       (D)  $C_6H_5Br$

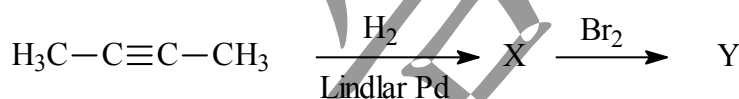
48. Consider the following reaction, which is spontaneous at room temperature:



One would predict that

- (A)  $\Delta H$  is + and  $\Delta S$  is +                      (B)  $\Delta H$  is - and  $\Delta S$  is -.  
 (C)  $\Delta H$  is - and  $\Delta S$  is +                      (D)  $\Delta H$  is + and  $\Delta S$  is -.

49. Identify compound Y.



- (A) 2-bromobutane  
 (B) meso-2,3-dibromobutane  
 (C) 2,3-dibromo-2-butene  
 (D) racemic (2R,3R) and (2S,3S)-2,3-dibromobutane

50. Which of the following cannot undergo an E2 reaction?

- (A)                      (B)                      (C)                      (D) B and C

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	英 文	考試日期	100/6/19	頁碼/總頁數	1/5
<p>說明：一、請檢查本試題之頁碼/總頁數，如有缺頁應立即舉手，請監試人員補發。</p> <p>二、選擇題答案使用 2B 鉛筆在答案卡上作答，未於答案卡內作答者，不予計分。</p> <p>三、作文題請以黑色或藍色筆（不得使用鉛筆）書寫於答案卷上，未於答案卷內作答者，不予計分。</p> <p>四、本試題必須隨同答案卷、答案卡一併繳回，不得攜出試場。</p>					

一、選擇題（單選題，共 40 題，每題 2 分，共 80 分。答錯 1 題倒扣 0.5 分，倒扣至本大題零分為止。未作答時，不給分亦不扣分）

I. **Vocabulary and Usage:** Choose the one word or phrase that best keeps the meaning of the original sentence if it is substituted for the underlined word or phrase.

1. Economists are questioning whether the current system of international currency trading should be changed.  
 (A) livestock                      (B) stock                      (C) academia                      (D) money
2. Those who procrastinate often lose out on missed opportunities.  
 (A) cheat                      (B) delay                      (C) wonder                      (D) dictate
3. Once a rarity, CD-ROM drives are now ubiquitous.  
 (A) widespread                      (B) cheap                      (C) essential                      (D) creative
4. Psychologists debate the best way to help people overcome their phobias.  
 (A) obsessions                      (B) fears                      (C) prejudices                      (D) troubles
5. The scientist spent months searching for an elaborate machine.  
 (A) complicated                      (B) proper                      (C) accountable                      (D) bewildered
6. While affluent consumers pay several dollars for a cup of coffee – helping international corporations make millions in profit, the coffee farmers themselves enjoy few benefits.  
 (A) sick                      (B) rich                      (C) unhappy                      (D) needy
7. Bungee jumping originated from an island in the Pacific, where the act of jumping from the top of a high tower is something that local young men do as a trial of courage.  
 (A) bond                      (B) cost                      (C) test                      (D) journey
8. Patients who suffer from Post-Traumatic Stress Disorder, or PTSD, a condition often triggered by the experience of traumatic or stressful events, have symptoms such as having difficulty to concentrate, insomnia, worry, confusion, heart palpitations, and depression which may last for many years after the event.  
 (A) caused                      (B) arrested                      (C) blocked                      (D) stopped
9. Transmitted by the bite of the Aedes aegypti mosquito, Dengue Fever, also known as Breakbone Fever, is an infectious tropical disease caused by the dengue virus.  
 (A) false                      (B) productive                      (C) harmless                      (D) contagious
10. The hospital standardized mortality ratio (HSMR) is an important measure to support efforts to improve patient safety and quality of care in Canadian hospitals.  
 (A) quality                      (B) medication                      (C) ethic                      (D) death
11. Randy Pausch, formerly a professor at Carnegie Mellon University in the U.S., gave an inspirational final speech to his students after the doctor had diagnosed him with terminal cancer.  
 (A) reviving                      (B) scary                      (C) fatal                      (D) benign

背面還有試題

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	英 文	考試日期	100/6/19	頁碼/總頁數	2/5
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12. Unlike hybrid cars, conventional vehicles are operated on fuel and are less environmentally friendly.  
 (A) exotic (B) foreign (C) polluted (D) traditional
13. Though Brazil's economic and social situation has recovered recently, President Dilma Rouseff still has to work hard to counteract the effects of the international financial crisis.  
 (A) resurrect (B) reward (C) resist (D) recommend
14. The threat of recent natural disasters is a reminder that despite our technological advances, men are still extremely vulnerable to the power of Mother Nature.  
 (A) secure (B) strong (C) unprotected (D) durable
- II. Grammar and Structure:** Select the one word or phrase that best completes the sentence.
15. Canada does not require that U.S. citizens obtain passports to enter the country, and \_\_\_\_\_.  
 (A) Mexico does neither (B) Mexico doesn't either  
 (C) neither Mexico does (D) neither Mexico
16. \_\_\_\_\_ in 1939, the Borne Bridge spans the Cape Cod Canal and is one of the many grand projects completed in the Depression Era.  
 (A) Completed (B) Completes (C) Having completed (D) Completing
17. No matter \_\_\_\_\_, Julie often throws up at the sight of blood and she believes that she has a calling to serve as a nurse.  
 (A) how ridiculous it seems (B) how seems it ridiculous  
 (C) ridiculous how (D) that how is ridiculous
18. Passengers \_\_\_\_\_ tickets 2 weeks in advance will be given an early-bird discount, plus an opportunity to win an i-Pad.  
 (A) purchasing (B) purchased (C) who purchasing (D) purchase
19. They spent a lazy afternoon sitting by the beach doing nothing. \_\_\_\_\_, they enjoyed a romantic lunch at a waterfront restaurant.  
 (A) Meanwhile (B) Afterwards (C) Earlier (D) Subsequently
20. In Asia, many people still live with their parents even though they are making their own living. \_\_\_\_\_, young people in the United States move away from their family as early as they go to college.  
 (A) For this reason (B) On the contrary (C) In addition (D) In the same way
21. \_\_\_\_\_ for her loyal dog that barked so loudly to wake the neighbors, the old lady would not have been found passed out on the floor in her home.  
 (A) If it is not (B) If it was not (C) If it wouldn't be (D) If it had not been
22. Eco-tourism, one of the newest sources of the revenue for the city, \_\_\_\_\_ for one-third of this small Caribbean island's total economy.  
 (A) had accounted (B) is accounted (C) accounts (D) has been accounted
23. Johnny is used to \_\_\_\_\_ up late, which is why he always shows up in his morning classes looking tired.  
 (A) stay (B) having stay (C) staying (D) stays

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

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### III. Cloze Test:

Choose the best answer for each missing word or phrase in the passages.

Beer is nearly as old as recorded history. Man is believed to 24 beer at about the same time 25 learned to make bread. Archaeological evidence indicates that beer 26 produced in Mesopotamia around 6000 B. C. In the earliest 27 civilization, ancient Sumer in the near East, about forty percent of the grain crop went to make beer, and 28 was apparently also used for currency by the local nobility. Beer, bread, and onions probably formed the basic diet of the ancient Egyptian people, and some of their beer had an alcoholic content of up to twelve percent. The Greeks carried the art of brewing from Egypt into Europe, and the Romans learned about beer drinking during 29 conquest of Greece. Brewing rapidly took hold in northern and Western Europe where grape-growing was impractical because of the weather.

24. (A) start brewing                      (B) have started brewing      (C) started to brewing          (D) started brewing
25. (A) it                                      (B) they                              (C) he                                  (D) when
26. (A) was                                    (B) were                              (C) had                                (D) being
27. (A) know                                (B) knowing                        (C) being known                  (D) known
28. (A) whose                                (B) they                                (C) which                              (D) it
29. (A) which                                (B) its                                  (C) whose                              (D) their

### IV. Reading comprehension: There are three passages in the reading comprehension test. Choose the best answer to each question on the basis of what is stated or implied in the passages.

(1.)

Our eyes and ears might be called transformers because they sense the light and sound around us and turn them into electrical impulses that the brain can interpret. These electrical impulses that have been transformed by the eyes and ears reach the brain and are turned into messages that we can interpret. For the eye, the process begins as the eye admits light waves, bends them at the cornea and lens, and then focuses them on the retina. At the back of each eye, nerve fibers bundle together to form optic nerves, which join and then split into two optic tracts. Some of the fibers cross so that part of the input from the right visual field goes into the left side of the brain, and vice versa. The process in the ear is carried out through sensory cells that are carried in fluid-filled canals and that are extremely sensitive to vibration. Sound that is transformed into electricity travels along nerve fibers in the auditory nerve. These fibers form a synapse with neurons that carry the messages to the auditory cortex on each side of the brain.

30. According to the author, we might call our eyes and ears “transformers” because:
- (A) They sense light and sound.                      (B) They create electrical impulse.  
 (C) The brain can interpret the input.                      (D) They travel from places to places.
31. In line 5, what does the word “them” refer to?
- (A) Light waves                      (B) Fields                      (C) Eyes                      (D) Messages

背面還有試題

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	英 文	考試日期	100/6/19	頁碼/總頁數	4/5
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32. According to the passage, optic nerves eventually \_\_\_\_\_.
- (A) bend                                      (B) split                                      (C) disappear                                      (D) become messages

(2.)

A headache is more than merely a pain in the head. Sometimes neck or upper back pain may also be involved with a headache. It ranks among the most common physical complaints. Two of the most common types of headaches are migraines and tension headaches. Possible causes of migraines include lack of sleep, stress, or flashing lights. The symptoms include blurry vision and vomiting. Another common type of headache is the tension headache. A person will feel tense if he or she is too anxious about something at work, school, or at home. Besides, doing an activity repetitively in the same position for a long period of time can result in a bad headache. The neck and head muscles become tense, and the headache follows.

Some methods to prevent migraines include taking deep breaths and lying down to rest in a dark room. Another method is to imagine scenes in which one feels warm and comfortable. Bright or flashing lights should be avoided. For a tension headache, one can relax tired muscles with a massage or head, neck, and shoulder exercises. In order to deal with different sources of stress, experts recommend doing activities that can help release stress, such as meditation or yoga. In addition to that, some over-the-counter medications such as aspirin might also help. However, if one has a headache and the symptoms persist over several days, one should see a doctor for further treatment.

33. What would be the best title for this article?
- (A) Origins of Headaches                                      (B) Do's and Don'ts of Headache Prevention  
(C) Causes and Prevention of Common Headaches                                      (D) Headache Reliefs
34. If a person is having trouble seeing and feeling like throwing up, which type of headache does this person have?
- (A) A migraine                                      (B) A tension headache                                      (C) Both A and B                                      (D) None of the above
35. According to the article, which of the following may prevent a headache?
- (A) Staying in a bright room                                      (B) Doing an activity repetitively  
(C) Having a massage                                      (D) Taking a lukewarm bath
36. Based on the article, which of the following is NOT a possible cause of headaches?
- (A) Doing gardening in a hot day                                      (B) Massaging head, neck, and shoulders  
(C) Playing online games all day long                                      (D) Giving a presentation in front of lots of people

(3.)

In Chinese medicine, allergies are considered a problem of the wei qi (pronounced “way chee”), or protective qi. This is the protective energy that circulates on the surface of the body, keeping out foreign substances and pathogens. When an allergen gets in far enough to cause a full-blown immune response, it means the outer protective layer needs to be strengthened.

Wei qi depends on the overall strength of the qi in the body; in cases of chronic allergies, there is often an underlying weakness in Spleen, Lung and/or Kidney qi. There may also be a stagnation, excess, or

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

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imbalance of qi that weakens the protective qi from the inside.

For example, someone who gets very congested, foggy-headed, and queasy with allergies may have an underlying Spleen deficiency. A person with Lung deficiency, on the other hand, might have more wheezing, or may get hives, eczema, or other skin reactions. Someone who gets red, itchy eyes and stubborn congestion may have some Liver qi stagnation that weakens the Lung qi. Of course, in real life it is common to have a combination of these patterns. Your acupuncture and herbal treatments will be modified to suit your specific situation.

37. According to the article, where can we find wei qi on our body?  
(A) In our immune system (B) On the surface (C) In the spleen (D) In the lung
38. In line 3, the word “full-blown” means  
(A) developing (B) windy (C) half-way (D) complete
39. When people have weak qi in their spleen, lung or kidney, it is closely relevant to  
(A) acute allergies (B) temporary allergies (C) long-term allergies (D) food allergies
40. What symptom was NOT mentioned when people have spleen, lung and kidney deficiencies?  
(A) stuffy nose (B) skin problems (C) breathing problems (D) dry eyes

## 二、寫作(Essay Writing)：(作文題，計 20 分)

The majority of Taiwan’s senior citizens living on their own are uneasy about visiting doctors and find trips to hospitals unsafe and inconvenient according to a recent survey conducted by the Taipei-based Huashan Social Welfare Foundation. In no more than 200 words, discuss what could be done by our government to solve this problem.

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	生物學 (含生理學)	考試日期	100/6/19	頁碼/總頁數	1/6
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選擇題 (單選題，共 50 題，每題 2 分，共 100 分。答錯 1 題倒扣 0.5 分，倒扣至零分為止。未作答時，不給分亦不扣分)

- The liver is involved in detoxification of many poisons and drugs. Which of the following structures is primarily involved in this process and therefore abundant in liver cells?  
(A) Transport vesicles (B) smooth ER (C) Golgi apparatus (D) Nuclear envelope
- Which of the following is a protein synthesized at specific times during the cell cycle that associates with a kinase to form a catalytically active complex?  
(A) PDGF (B) MPF (C) protein kinase (D) cyclin
- The hormone primarily responsible for setting the basal metabolic rate and for promoting the maturation of the brain is  
(A) TSH. (B) thyroxine. (C) ACTH. (D) cortisol.
- Which of the following cells of the pancreas secrete insulin?  
(A) exocrine cells (B) alpha cells (C) beta cells (D) delta cells
- A biologist discovers two populations of wolf spiders whose members appear identical. Members of one population are found in the leaf litter deep within the woods. Members of the other population are found in the grass at the edge of the woods. The biologist decides to designate the members of the two populations as two separate species. Which species concept is this biologist most closely utilizing?  
(A) phylogenetic (B) ecological (C) Physiological (D) morphological
- Which group includes members that are important primary producers in ocean food webs, causes red tides that kill many fish, and may even be carnivorous?  
(A) ciliates (B) apicomplexans (C) dinoflagellates (D) brown algae
- The blastopore denotes the presence of an endoderm-lined cavity in the developing embryo, a cavity that is known as the  
(A) archenteron. (B) blastula. (C) coelom. (D) blastocoel.
- What type of specialized junction connects epithelial cells lining the renal tubules?  
(A) tight junctions (B) desmosomes (C) gap junctions (D) intercalated disks
- In both males and females, gonadotropin secretion by the anterior pituitary is stimulated by  
(A) GnRH. (B) FSH. (C) GHRH. (D) androgens.
- The corpus luteum is maintained for the first 10 weeks of pregnancy by  
(A) progesterone. (B) estrogen. (C) hCG. (D) LH.
- Which of the following is an autoimmune disease in which myelinated neurons become the target of the immune response?  
(A) rheumatoid arthritis (B) myasthenia gravis (C) multiple sclerosis (D) diabetes mellitus
- The reason older persons are more sensitive to sun exposure and more likely to get sunburned is that with age  
(A) glandular activity declines. (B) skin thickness decreases.  
(C) melanocyte activity declines. (D) vitamin D<sub>3</sub> production declines.

背面還有試題

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	生物學 (含生理學)	考試日期	100/6/19	頁碼/總頁數	2/6
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13. Glucose diffuses slowly through artificial phospholipid bilayers. The cells lining the small intestine, however, rapidly move large quantities of glucose from the glucose-rich food into their glucose-poor cytoplasm. Using this information, which transport mechanism is most probably functioning in the intestinal cells?
  - (A) simple diffusion
  - (B) phagocytosis
  - (C) active transport pumps
  - (D) facilitated diffusion
  
14. The structure of a protein that contains two or more polypeptides is the
  - (A) primary structure.
  - (B) secondary structure.
  - (C) tertiary structure.
  - (D) quaternary structure.
  
15. A man with Klinefelter syndrome (47, XXY) is expected to have any of the following *except*:
  - (A) lower sperm count.
  - (B) possible breast enlargement.
  - (C) increased testosterone.
  - (D) female body characteristics.
  
16. Ketoacidosis in untreated diabetes mellitus is due to
  - (A) excessive fat catabolism.
  - (B) hypoventilation.
  - (C) excessive fluid loss.
  - (D) excessive eating and obesity.
  
17. If humans have 2,900 Mb, a specific member of the lily family has 120,000 Mb, and a yeast has ~13 Mb, why can't this data allow us to order their evolutionary significance?
  - (A) Size matters less than gene density.
  - (B) Size does not compare to gene density.
  - (C) Size does not vary with gene complexity.
  - (D) Size is comparable only within phyla.
  
18. Drinking alcohol makes you urinate more frequently because
  - (A) alcohol contains caffeine.
  - (B) alcohol inhibits the release of ADH and therefore causes excessive urinary water loss.
  - (C) alcohol inhibits the release of renin, a hormone that increases water reabsorption in the kidneys.
  - (D) alcohol causes more water to filter from the blood into the kidneys.
  
19. Celery stalks that are immersed in fresh water for several hours become stiff and hard. Similar stalks left in a salt solution become limp and soft. From this we can deduce that the cells of the celery stalks are
  - (A) hypotonic to both fresh water and the salt solution.
  - (B) hypertonic to both fresh water and the salt solution.
  - (C) hypertonic to fresh water but hypotonic to the salt solution.
  - (D) hypotonic to fresh water but hypertonic to the salt solution.
  
20. Which kind of metabolic poison would most directly interfere with glycolysis?
  - (A) an agent that reacts with oxygen and depletes its concentration in the cell
  - (B) an agent that binds to pyruvate and inactivates it
  - (C) an agent that closely mimics the structure of glucose but is not metabolized
  - (D) an agent that blocks the passage of electrons along the electron transport chain
  
21. In cats, black fur color is caused by an *X-linked* allele; the other allele at this locus causes orange color. The heterozygote is tortoiseshell. What kinds of offspring would you expect from the cross of a black female and an orange male?
  - (A) Tortoiseshell females; tortoiseshell males
  - (B) Black females; orange males
  - (C) Orange females; orange males
  - (D) Tortoiseshell females; black males



# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	生物學 (含生理學)	考試日期	100/6/19	頁碼/總頁數	3/6
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22. A young animal has never had much energy. He is brought to a veterinarian for help and is sent to the animal hospital for some tests. There they discover his mitochondria can use only fatty acids and amino acids for respiration, and his cells produce more lactate than normal. Of the following, which is the best explanation of his condition?
- (A) His mitochondria lack the transport protein that moves pyruvate across the outer mitochondrial membrane.
  - (B) His cells cannot move NADH from glycolysis into the mitochondria.
  - (C) His cells contain something that inhibits oxygen use in his mitochondria.
  - (D) His cells lack the enzyme in glycolysis that forms pyruvate.
23. The frequency of heterozygosity for the sickle cell anemia allele is unusually high, presumably because this reduces the frequency of malaria. Such a relationship is related to which of the following?
- (A) Mendel's law of independent assortment
  - (B) Mendel's law of segregation
  - (C) Darwin's explanation of natural selection
  - (D) Darwin's observations of competition
24. The enzyme telomerase solves the problem of replication at the ends of linear chromosomes by which method?
- (A) causing specific double strand DNA breaks that result in blunt ends on both strands
  - (B) causing linear ends of the newly replicated DNA to circularize
  - (C) adding numerous short DNA sequences such as TTAGGG, which form a hairpin turn
  - (D) adding numerous GC pairs which resist hydrolysis and maintain chromosome integrity
25. When DNA is compacted by histones into 10 nm and 30 nm fibers, the DNA is unable to interact with proteins required for gene expression. Therefore, to allow for these proteins to act, the chromatin must constantly alter its structure. Which processes contribute to this dynamic activity?
- (A) DNA supercoiling at or around H1
  - (B) methylation and phosphorylation of histone tails
  - (C) hydrolysis of DNA molecules where they are wrapped around the nucleosome core
  - (D) accessibility of heterochromatin to phosphorylating enzymes
26. Which of the following is *correct* for both prokaryotic and eukaryotic gene expression?
- (A) After transcription, a 3' poly-A tail and a 5' cap are added to mRNA.
  - (B) Translation of mRNA can begin before transcription is complete.
  - (C) RNA polymerase binds to the promoter region to begin transcription.
  - (D) The mRNA transcript is the exact complement of the gene from which it was copied.
27. Which of the following is a *correct* statement about nitrogen fixation in root nodules?
- (A) The plant contributes the nitrogenase enzyme.
  - (B) The process is relatively inexpensive in terms of ATP costs.
  - (C) Leghemoglobin helps maintain a low O<sub>2</sub> concentration within the nodule.
  - (D) The bacteria of the nodule are autotrophic.
28. In animals, embryonic stem cells differ from adult stem cells in that
- (A) embryonic stem cells are pluripotent, and adult stem cells are totipotent.
  - (B) embryonic stem cells are totipotent, and adult stem cells are pluripotent.
  - (C) embryonic stem cells have more genes than adult stem cells.
  - (D) embryonic stem cells have fewer genes than adult stem cells.

背面還有試題

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	生物學 (含生理學)	考試日期	100/6/19	頁碼/總頁數	4/6
說明：一、請檢查本試題之頁碼/總頁數，如有缺頁應立即舉手，請監試人員補發。 二、選擇題答案使用 2B 鉛筆在答案卡上作答，未於答案卡內作答者，不予計分。 三、本試題必須隨同答案卡一併繳回，不得攜出試場。					

29. Which of the following best describes siRNA?
- (A) a short double-stranded RNA, one of whose strands can complement and inactivate a sequence of mRNA
  - (B) a single-stranded RNA that can, where it has internal complementary base pairs, fold into cloverleaf patterns
  - (C) a double-stranded RNA that is formed by cleavage of hairpin loops in a larger precursor
  - (D) a molecule, known as Dicer, that can degrade other mRNA sequences
30. Which of the following series best reflects what we know about how the flu virus moves between species?
- (A) An avian flu virus undergoes several mutations and rearrangements such that it is able to be transmitted to other birds and then to humans.
  - (B) The flu virus in a pig is mutated and replicated in alternate arrangements so that humans who eat the pig products can be infected.
  - (C) A flu virus from a human epidemic or pandemic infects birds; the birds replicate the virus differently and then pass it back to humans.
  - (D) An animal such as a pig is infected with more than one virus, genetic recombination occurs, the new virus mutates and is passed to a new species such as a bird, the virus mutates and can be transmitted to humans.
31. Biofuels are mainly produced by:
- (A) plants that convert hemicellulose into gasoline.
  - (B) the breakdown of cell wall biopolymers into sugars that can be fermented.
  - (C) the genetic engineering of ethanol generating genes into plants.
  - (D) plants that are easy to grow in arid environments.
32. A plant will recognize a pathogenic invader
- (A) if it has many specific plant disease resistance (*R*) genes.
  - (B) when the pathogen has an *R* gene complementary to the plant's antivirulence (*Avr*) gene.
  - (C) when the pathogen secretes *Avr* protein.
  - (D) if it has the specific *R* gene that corresponds to the pathogen molecule encoded by an *Avr* gene.
33. All of the following are responses of plants to cold stress *except*:
- (A) the production of a specific solute "plant antifreeze" that reduces water loss.
  - (B) excluding ice crystals from the interior walls.
  - (C) conversion of the fluid mosaic cell membrane to a solid mosaic one.
  - (D) an alteration of membrane lipids so that the membranes remain flexible.
34. Processing of filtrate in the proximal and distal tubules accomplishes what important function?
- (A) sorting plasma proteins according to size
  - (B) converting toxic ammonia to less toxic urea
  - (C) maintaining a constant pH in body fluids
  - (D) regulating the speed of blood flow through the nephron
35. Your bone cells, muscle cells and skin cells look different because
- (A) they contain different numbers of genes.
  - (B) different genes are active in different kinds of cells.
  - (C) they are present in different organs.
  - (D) each cell contains different kinds of genes.

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	生物學 (含生理學)	考試日期	100/6/19	頁碼/總頁數	5/6
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36. In vertebrate animals, spermatogenesis and oogenesis differ, in that
- (A) oogenesis begins at the onset of sexual maturity, whereas spermatogenesis happens in embryonic development.
  - (B) oogenesis produces four haploid cells, whereas spermatogenesis produces only one functional spermatozoon.
  - (C) cytokinesis is unequal in oogenesis, whereas it is equal in spermatogenesis.
  - (D) spermatogenesis is not completed until after fertilization occurs, but oogenesis is completed by the time a girl is born.
37. Biologists have discovered how to put together a bacteriophage with the protein coat of phage T2 and the DNA of phage lambda. If this composite phage was allowed to infect a bacterium, the phages produced in the host cell would have
- (A) a mixture of the DNA and proteins of both phages.
  - (B) the protein and DNA of phage lambda.
  - (C) the protein of phage T2 and the DNA of phage lambda.
  - (D) the protein of phage lambda and the DNA of phage T2.
38. Which of the following hormones have antagonistic (opposing) effects?
- (A) growth hormone and epinephrine
  - (B) glucagon and thyroxine
  - (C) ACTH and cortisone
  - (D) parathyroid hormone and calcitonin
39. Which of these statements about edema is false?
- (A) Edema may be caused by blockage of lymphatic vessels.
  - (B) Edema may be caused by high blood pressure.
  - (C) Edema may be caused by increased plasma protein.
  - (D) Edema may be caused by leakage of plasma protein into tissue fluid.
40. Which of these statements about gamma interferon is false?
- (A) It stimulates the immune system to attack infected cells and tumors.
  - (B) It is produced by almost all cells of the body.
  - (C) It is a polypeptide regulator.
  - (D) It can be produced in response to viral infections.
41. Which of these statements about intrinsic factor is false?
- (A) It helps prevent pernicious anemia.
  - (B) It is secreted by the pancreas.
  - (C) It promotes absorption of vitamin B<sub>12</sub> in the intestine.
  - (D) It is a polypeptide.
42. Which of the following would tend to reduce the concentration of lactic acid that accumulates in a muscle cell as a result of contractile activity?
- (A) increasing the diameter of the cell
  - (B) increasing the number of mitochondria in the cell
  - (C) decreasing the oxygen supply to the cell
  - (D) increasing the concentration of glycolytic enzymes.

背面還有試題

# 義守大學 100 學年度 學士後中醫學系 入學招生考試試題

考試科目	生物學 (含生理學)	考試日期	100/6/19	頁碼/總頁數	6/6
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43. Which of these statements about fat digestion and absorption is false?  
(A) Triglycerides are resynthesized from monoglycerides and fatty acids in the intestinal epithelial cells.  
(B) Triglycerides are hydrolyzed by the action of pancreatic lipase.  
(C) Triglycerides, as particles called chylomicrons, are absorbed into blood capillaries within the villi.  
(D) Emulsification by bile salts increases the rate of fat digestion.
44. Moment-to-moment changes in total peripheral resistance are normally due to changes in  
(A) the viscosity of blood.  
(B) the radius of certain blood vessels in the systemic circuit.  
(C) the lengths of blood vessels in the systemic circuit.  
(D) the cardiac output.
45. The motor end plate is  
(A) the specialized region of an effector organ innervated by an autonomic postganglionic neuron.  
(B) the specialized synaptic terminal of autonomic postganglionic neurons.  
(C) the specialized synaptic terminal of the motor neuron.  
(D) the specialized region of skeletal muscle innervated by a motor neuron.
46. Which of the following is most likely to cause a decrease in the stroke volume of the left ventricle?  
(A) an increase in end-diastolic volume  
(B) an increase in the activity of sympathetic nerves to the heart  
(C) an increase in mean arterial pressure  
(D) an increase in end-diastolic pressure
47. Lymphatic capillaries differ from blood capillaries in that  
(A) lymphatic capillaries are not connected to any other vessels.  
(B) lymphatic capillaries have a lower permeability to water.  
(C) lymphatic capillaries have a lower permeability to small solutes.  
(D) lymphatic capillaries are blind ended.
48. If arterial pressure is elevated, baroreceptor signals trigger which of the following responses?  
(A) an increase in epinephrine secretion  
(B) a rise in vasopressin secretion  
(C) a fall in plasma angiotensin II levels  
(D) increased activity in sympathetic vasoconstrictor nerves
49. In respiring tissues, a rise in blood  $P_{CO_2}$  causes all of the following except  
(A) a rise in the concentration of carbaminohemoglobin.  
(B) an increase in the affinity of hemoglobin for oxygen.  
(C) an increase in the hydrogen ion concentration.  
(D) a rise in bicarbonate concentration.
50. Which of the following is not true about helper T cells?  
(A) They secrete antibodies.  
(B) When activated, they secrete IL-2 and other cytokines.  
(C) They are subject to infection by HIV.  
(D) They function in both cell-mediated and humoral immune responses.