

嘉南藥理科技大學 101 學年度第二學期轉學生招生考試

考試科目(二) 有機化學試題【四技三年級】

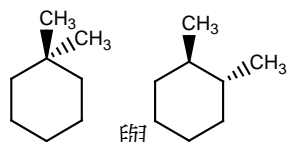
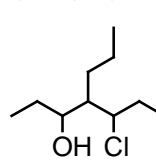
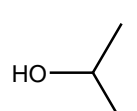
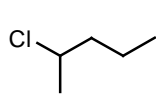
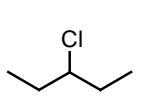
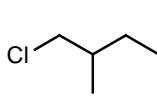
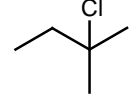
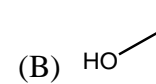
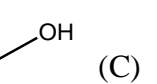
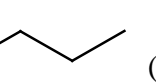
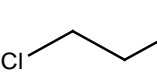
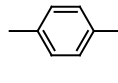
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准考證號碼：

注意事項

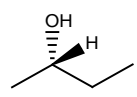
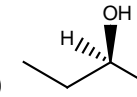
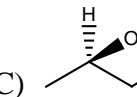
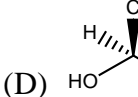
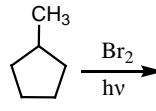




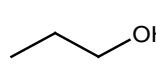
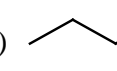
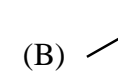
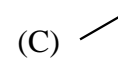
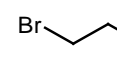
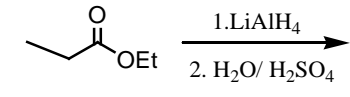
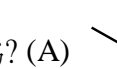
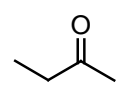
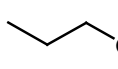
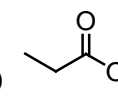
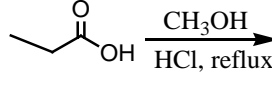
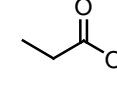
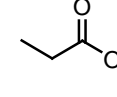
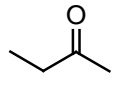
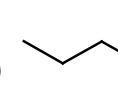
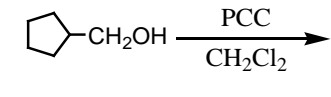
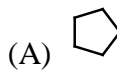
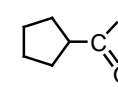
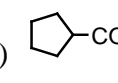
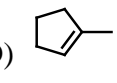
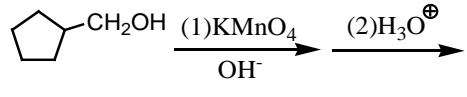
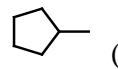
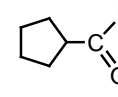
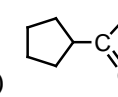
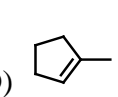
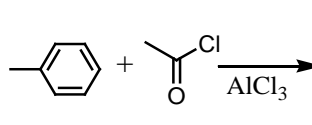
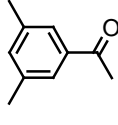
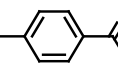
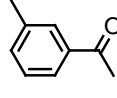
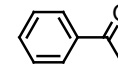
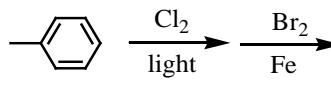
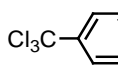
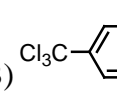
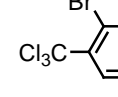
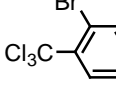
1. 本試題計 40 題，甲部分 20 題，每題 4 分；乙部分 20 題，每題 6 分，兩者合計共 200 分。每題都有(A)(B)(C)(D)四個答案，其中只有一個是正確，請將正確的答案選出，然後在答案卡上同一題號相對位置方格範圍內，用 2B 鉛筆全部塗黑，答對者得題分，答錯與不答者該題以零分計。
2. 請先將本試題准考證號碼方格內，填上自己准考證號碼，考完後將「答案卡」及「試題」一併繳回。

【甲】 每題 4 分

1.  的關係何者正確? (A)組成異構物(B)鏡像異構物(C)順反異構物(D)相同化合物
2. 下列何者不具有 π 鍵? (A) Benzene (B) Acetic acid (C) Toluene (D) Chloroform
3.  IUPAC 命名應為 (A) 4-Propyl-5-chloro-3-heptanol (B) 4-Propyl-3-chloro-5-heptanol (C) 4-(1-Chloropropyl)-3-heptanol (D) 5-Chloro-4-propyl-3-heptanol
4. 下列何者為 Diethyl ether 化學式? (A) CH_3OCH_3 (B) $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3$ (C) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO}$ (D) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$
5.  的俗名? (A)丙醚 (B)丙酮 (C)丙醛 (D)異丙醇
6. 在 CH_4 中 C 原子以何種混成軌域參與鍵結? (A) sp (B) sp^2 (C) sp^3 (D) sp^3d
7. 下列何者為 $\text{CH}_3\text{CCl}(\text{CH}_3)\text{CH}_2\text{CH}_3$ 之結構式? (A)  (B)  (C)  (D) 
8. 下列何者沸點最高? (A)  (B)  (C)  (D) 
9. 下列哪一種溶劑對水的溶解度最小? (A) Ethyl acetate (B) Hexane (C) Ethanol (D) Acetone
10. 下列何者為 $\text{CH}_3\text{CH}_2\text{COOCH}_2\text{CH}_3$ 的名稱? (A)乙酸乙酯 (B)乙酸丙酯 (C)丙酸丙酯 (D)丙酸乙酯
11. 下列何者為 phenol 的化學式? (A) CH_3OH (B) $(\text{CH}_3)_2\text{C}=\text{O}$ (C) C_6H_6 (D) $\text{C}_6\text{H}_5\text{OH}$
12. 下列何者酸性最強? (A) $\text{CF}_3\text{CO}_2\text{H}$ (B) $\text{CHF}_2\text{CO}_2\text{H}$ (C) $\text{CH}_2\text{FCO}_2\text{H}$ (D) $\text{CH}_3\text{CO}_2\text{H}$
13. 下列鹵烷何者最易進行 $\text{S}_{\text{N}}2$ 取代反應? (A) CH_3Br (B) $\text{CH}_3\text{CH}_2\text{Br}$ (C) $(\text{CH}_3)_2\text{CHBr}$ (D) $(\text{CH}_3)_3\text{CBr}$
14. 下列何者不屬於親核劑(nucleophile)? (A) SH^- (B) NH_3 (C) CH_3^+ (D) OH^-
15. 下列何者為 $\text{NaCN} + \text{CH}_3\text{CH}_2\text{I}$ 進行取代反應的主產物? (A) $\text{CH}_3\text{CH}_2\text{CN}$ (B) $\text{CH}_3\text{CH}_2\text{Na}$ (C) $\text{CH}_2=\text{CH}_2$ (D) CH_3CH_3
16. 下列何者具有鏡像異構物? (A) 3-甲基戊烷 (B) 2-甲基丁烷 (C) 2-氟丙烷 (D) 2-溴戊烷
17. 下列何者屬於三級胺? (A) CH_3NH_2 (B) $(\text{CH}_3)_2\text{NH}$ (C) $(\text{CH}_3)_3\text{N}$ (D) NH_3
18. 苯上的有幾種化學情境的 H? (A) 6 (B) 3 (C) 2 (D) 1
19.  結構中苯環上的兩個甲基之相對位置為? (A)ortho (B) meta (C) para (D) trans
20. 分子式為 $\text{C}_4\text{H}_{10}\text{O}$ 的醇類組成異構物有幾種? (A) 3 種 (B) 4 種 (C) 5 種 (D) 6 種

<背面尚有題目>

【乙】 每題 6 分

21. 下列結構何者為(R)-2-Butanol? (A)  (B)  (C)  (D) 
22. 下列何者屬於二級鹵烷? (A) CH_3Cl (B) $\text{CH}_3\text{CH}_2\text{Cl}$ (C) $(\text{CH}_3)_2\text{CHCl}$ (D) $(\text{CH}_3)_3\text{CCl}$
23.  主產物為? (A)  (B)  (C)  (D) 
24. 環己烯 + $\text{Br}_2 \rightarrow$ 主產物為? (A) 順-1,2-二溴環己烷 (B) 反-1,2-二溴環己烷 (C) 環己醇 (D) 環己烷
25. $\text{CH}_3\text{CH}=\text{CH}_2 + \text{HBr}/\text{ROOR} \rightarrow$ 主產物為? (A) $\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$ (B) $\text{CH}_3\text{CHBrCH}_3$ (C) $\text{CH}_3\text{CHBrCH}_2\text{Br}$ (D) $\text{CH}_3\text{C}\equiv\text{CH}$
26. $\text{CH}_3\text{CH}=\text{CH}_2 + \text{HBr} \rightarrow$ 主產物為? (A) $\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$ (B) $\text{CH}_3\text{CHBrCH}_3$ (C) $\text{CH}_3\text{CHBrCH}_2\text{Br}$ (D) $\text{CH}_3\text{C}\equiv\text{CH}$
27.  主產物為? (A)  (B)  (C)  (D) 
28. 醇類脫水反應可得? (A) 鹵烷類 (B) 醛類 (C) 酮類 (D) 烯類
29.  主產物為? (A)  (B)  (C)  (D) 
30.  主產物為? (A)  (B)  (C)  (D) 
31.  主產物為? (A)  (B)  (C)  (D) 
32.  主產物為? (A)  (B)  (C)  (D) 
33.  主產物為? (A)  (B)  (C)  (D) 
34.  主產物為? (A)  (B)  (C)  (D) 
35. 乙酸異戊酯在酸性條件下進行水解可得? (A) 乙酸及異戊醇 (B) 異戊酸及乙醇 (C) 丙酸及丁醇 (D) 戊酸及乙醇
36. 以下何者不適合擔任離去基? (A) Cl^- (B) Br^- (C) I^- (D) OH^-
37. 以下何者在酸催化下最易進行脫水反應? (A) 3 級醇 (B) 2 級醇 (C) 1 級醇 (D) 甲醇
38. 兩個鏡像異構物間何種性質不同? (A) 熔點 (B) 沸點 (C) 密度 (D) 旋光性
39. $\text{H}-\overset{\text{O}}{\parallel}{\text{C}}-\text{H}$ 此化合物名稱爲? (A) 甲醚 (B) 甲醇 (C) 甲酸 (D) 甲醛
40. 下列基團何者可活化苯環的親電子性取代反應? (A) $-\text{NO}_2$ (B) $-\text{COOH}$ (C) $-\text{NH}_2$ (D) $-\text{F}$