

大葉大學九十三年學年度轉學招生考試試題紙

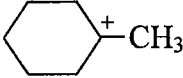
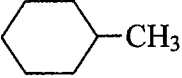
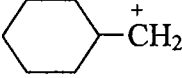
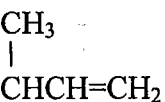
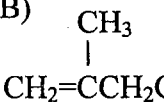
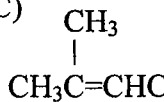
系組別	日\第二部	年級	考試科目 (中文名稱)	考試日期	節次	備註
生物產業科技學系	日	三	有機化學	7月19日	3	共乙頁

註：考生可否攜帶計算機或其他資料作答，請在備註欄註明（如未註明，一律不准攜帶） (1=10 ~ 12=30)

一、試寫出下列化合物之結構式：(每題三分，共三十分)

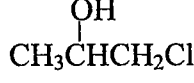
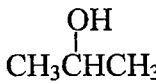
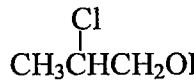
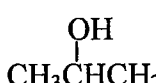
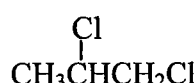
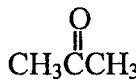
- | | |
|-------------------------------------|---------------------------------|
| (a) Butanone | (b) Hexanoic acid |
| (c) Pentanal | (d) 2-Propanol |
| (e) <i>o</i> -Bromotoluene | (f) Isobutylamine |
| (g) (R)-3-Bromo-3-methylcyclohexene | (h) Bicyclo[2,2,1]heptane |
| (i) <i>sec</i> -Butyl methanoate | (j) (Z)-1-Bromo-1-chloropropene |

二、試將下列各小題依指定特性，由高至低（或大至小）順序排列：(每題五分，共三十分)

- (a) Boiling point: (A) $\text{CH}_3(\text{CH}_2)_5\text{COOH}$ (B) $\text{CH}_3(\text{CH}_2)_6\text{CHO}$ (C) $\text{CH}_3(\text{CH}_2)_6\text{CH}_2\text{OH}$
- (b) Boiling point: (A) $\text{CH}_3(\text{CH}_2)_4\text{CH}_3$ (B) $\text{HOCH}_2(\text{CH}_2)_2\text{CH}_2\text{OH}$ (C) $\text{CH}_3(\text{CH}_2)_3\text{CH}_2\text{OH}$
- (c) Stability: (A)  (B)  (C) 
- (d) Acid strength: (A) $\text{CH}=\text{CH}$ (B) $\text{CH}_2=\text{CH}_2$ (C) CH_3CH_3
- (e) Base strength: (A) H_2O (B) NH_3 (C) CH_3COO^-
- (f) Heat of hydrogenation: (A)  (B)  (C) 

三、請從右方選項中選出下列各反應之主要產物：(每題五分，共四十分)

- (a) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow[\text{H}_2\text{O}_2]{\text{OsO}_4}$
- (b) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow[2. \text{H}_2\text{O}_2, \text{NaOH}]{1. \text{BH}_3}$
- (c) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow{\text{H}_2\text{O}, \text{H}_2\text{SO}_4}$
- (d) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow{\text{Cl}_2 / \text{H}_2\text{O}}$
- (e) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow[\text{Heat}]{\text{Cl}_2}$
- (f) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow{\text{H}_2 / \text{Pd}}$
- (g) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow[2. \text{NaBH}_4]{1. \text{Hg}(\text{OAc})_2, \text{H}_2\text{O}}$
- (h) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow[2. (\text{CH}_3)_2\text{S}]{1. \text{O}_3}$

(A) $\text{CH}_3\text{CH}_2\text{CH}_3$	(G) $\text{CH}_3\text{CHO} + \text{HCHO}$
(B) $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$	(H) 
(C) 	(I) 
(D) 	(J) 
(E) $\text{CH}_3\text{CH}_2\text{CHO}$	(K) $\text{ClCH}_2\text{CH}=\text{CH}_2$
(F) 	(L) $\text{CH}_3\text{CH}=\text{CHCl}$