

系所(組)別：應用化學所

M-3-1

考試科目：有機化學與分析化學

一、Explain/Define the following terms:(2 pts each; 10 pts total)

- (1) Species analysis (2) Transmittance (3) Beer's Law (4) LPME
(5) Accuracy

二、(1) How many theoretical plates produce a chromatography peak eluting at 12.83 min with a width at half-height of 8.7 s? (5 pts)

(2) The length of the column is 15.8 cm. Find the plate height. (5 pts)

三、For the numbers 116.0, 97.9, 114.2, 106.8, and 108.3, find the mean, standard deviation, and 90% confidence interval from the mean? (10 pts)

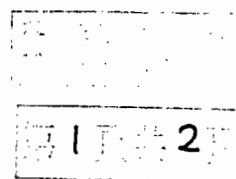
四、Explanation the factors affect the resolution of chromatography. (10 pts)

五、What kinds of matrix modifier were used for GFAA ? (5 pts)

What is the purpose of a matrix modifier in atomic spectroscopy? (5 pts)

Values of Student's t

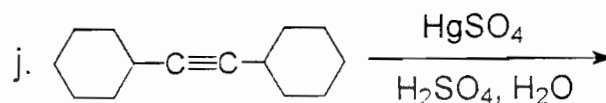
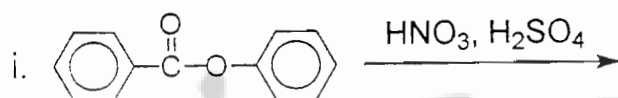
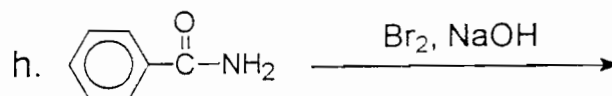
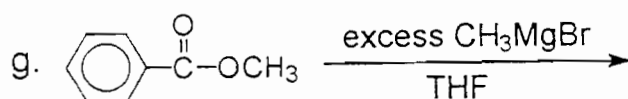
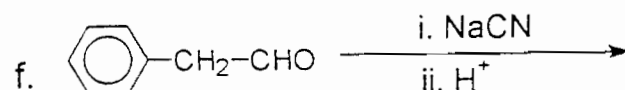
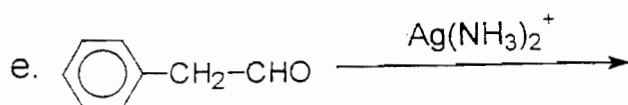
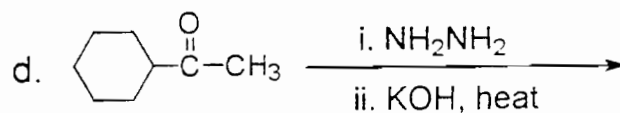
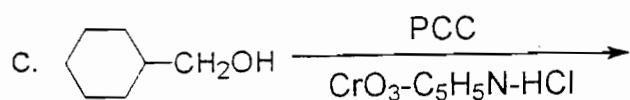
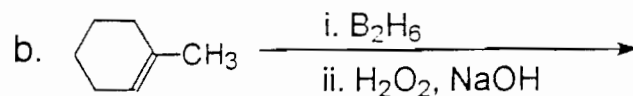
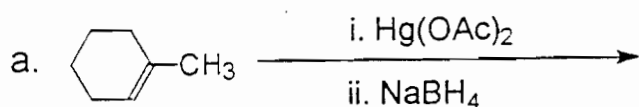
Degrees of freedom	Confidence level (%)		
	90	95	98
3	2.353	3.182	4.541
4	2.132	2.776	3.747
5	2.015	2.571	3.365



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六. Reactions. (3 pts. each; 30 pts. total.)



七. Synthesis. (10 pts. each; 20 pts. total.)

本試題採
雙面印刷

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