

Name of the Student: _____

Max. Marks : 26 Marks

Time : 26 Minutes

Mark Schemes

Q1.

- | | |
|--|---|
| (a) GLC or distillation | 1 |
| (b) C=O | 1 |
| (c) (i) Cl has two isotopes | 1 |
| (ii) $\text{CH}_3 \overset{+}{\text{C}} = \text{O}$ | 1 |
| $\text{C}_4\text{H}_7\text{ClO}^{+*} \rightarrow \text{CH}_3 \overset{+}{\text{C}} = \text{O} + \text{C}_2\text{H}_4\text{Cl}^*$ | 1 |
| (d) (i) e.g. CDCl_3 or CCl_4 | 1 |
| (ii) $\text{Si}(\text{CH}_3)_4$ | 1 |
| (e) 0 and 3 | 1 |
| (f) | |
| $ \begin{array}{c} \text{CH}_3 - \text{C} - \text{CH} - \text{CH}_3 \\ \parallel \quad \\ \text{O} \quad \text{Cl} \end{array} $ | 1 |
| (g) $\text{CH}_3\text{CH}_2\text{CH}_2\text{COCl}$ or $(\text{CH}_3)_2\text{CHCOCl}$ | 1 |

[10]

Q2.

(a) X (O-H) (alcohols)

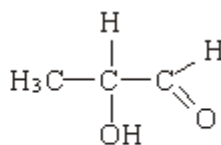
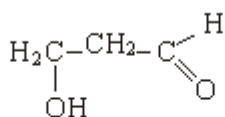
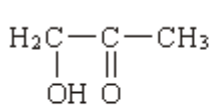
penalise acid or missing "alcohol"

1

Y C=O

allow carbonyl

1

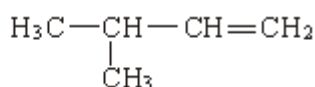
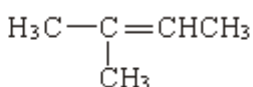
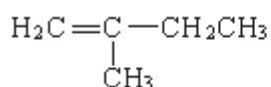


A

NOT acid

4

(b)

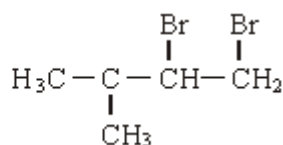
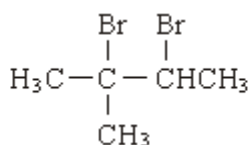
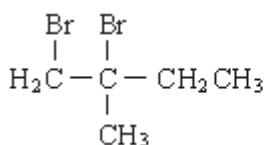


Allow consequ dibromocompounds following incorrect unbranched alkenes

NOT allow dibromocompound consequent on a duplicate alkene

NOT allow monobromocompounds if HBr added

3



3

6:3:1 either next to correct structure or to none

1

Allow a mark for identifying correct dibromocompound with three peaks even if integration ratio is wrong

1

if 6:3:1 missing or wrong, no marks for splitting

Only award a mark for splitting if it is clear which integration number it refers to

6 singlet or drawn

1

3 doublet or drawn

1

1 quartet/quadruplet or drawn

1

(max 10 marks)

[16]