

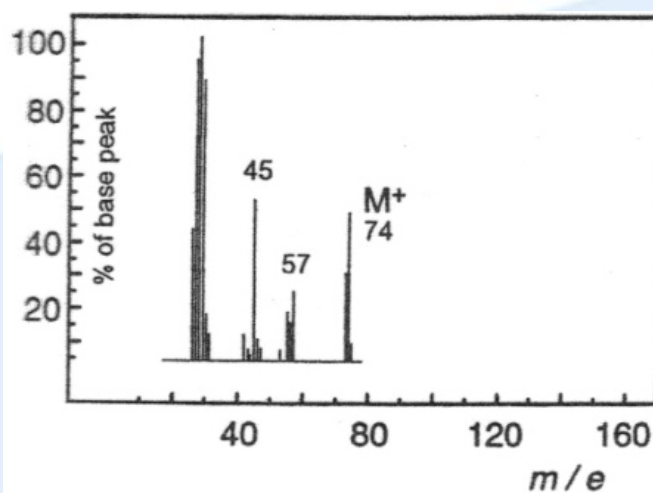
## SL & HL Spectroscopic identification of organic compounds: Question 6

Identify **Compound F** from the data (a – d) given and explain how you arrived at your answer

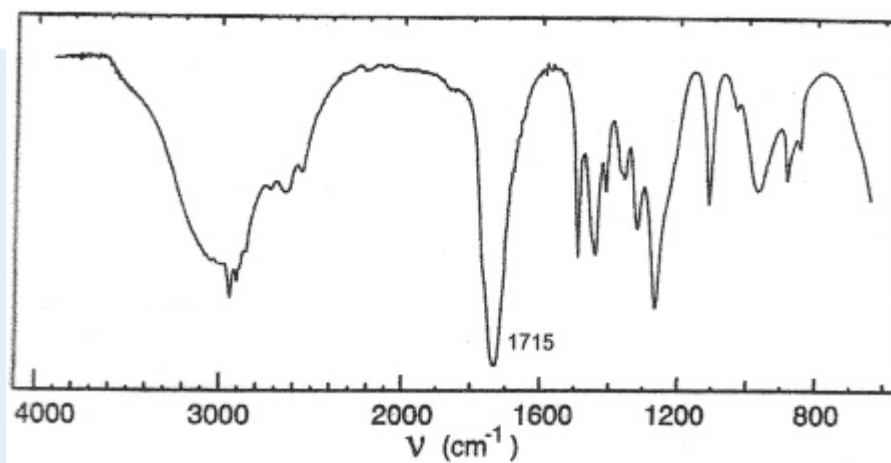
### (a) Elemental analysis of **Compound F**

Element	Percentage by mass
Carbon	48.63
Hydrogen	8.18
Oxygen	43.19

### (b) Mass spectrum of **Compound F**



(c) Infrared spectrum of **Compound F**



(d) Information about **Compound F** from  $^1\text{H}$  NMR spectrum

Position of signal / $\delta$ ppm	Integration trace
1.1	3
2.4	2
11.1	1