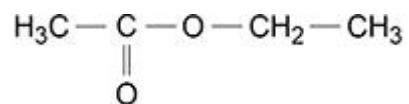


Q1.

Which statement does **not** support the suggestion that an unknown organic compound is



A Its ^1H NMR spectrum has 3 peaks with an integration ratio of 2:3:3

B Its ^{13}C NMR spectrum has 3 peaks.

C Its infrared spectrum has an absorption at 1735 cm^{-1}

D It has 36.36% by mass of oxygen and 9.09% by mass of hydrogen.

(Total 1 mark)

Q2.

How many peaks are there in the ^{13}C NMR spectrum of 1,4-dimethylbenzene?

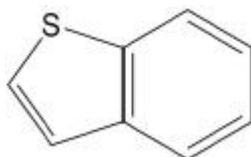
A 8

B 4

C 3

D 2

(Total 1 mark)

Q3.How many peaks does this compound have in its ^{13}C spectrum?

- A 5
- B 6
- C 7
- D 8

(Total 1 mark)**Q4.**Which amine has only **three** peaks in its proton NMR spectrum?

- A Methylamine
- B Trimethylamine
- C Diethylamine
- D Propylamine

(Total 1 mark)