## **Organic: Separate Organic Compounds**

a) c)	Fractional distillation Elimination		b) d)	Substitution Polymerization	
	process commonly used to co	nvert pure samples of hig	gh molar	mass hydrocarbons into low molar mass hydrocar	bons
a) c)	Cracking Substitution		b) d)	Combustion Fractional distillation	
	le petroleum is a complex mix rable components of crude pe	•	ne proces	s involved in separation and purification of the	
a) c)	Cracking Fractional distillation		b) d)	Elimination Esterification	
The	boiling points for a homologou	us series of methyl halide	s is giver	n below	
	Methyl Halide	Boiling point °C			
	CH <sub>3</sub> I	43			
	CH₃F	-78			
	CH₃F CH₃Cl	-24	1		
The	CH₃Cl	-24 ?			
The l	CH₃Cl CH₃Br	-24 ?	b)	50	
	CH <sub>3</sub> Cl CH <sub>3</sub> Br boiling point of CH <sub>3</sub> Br will be a	-24 ?	b) d)	50 -90	
a) c)	CH <sub>3</sub> Cl CH <sub>3</sub> Br boiling point of CH <sub>3</sub> Br will be a 4 -30	-24 ? about°C.	d)		
a) c)	CH <sub>3</sub> Cl CH <sub>3</sub> Br boiling point of CH <sub>3</sub> Br will be a 4 -30	-24 ? about°C.	d)	-90	
a) c) Crud	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo	-24 ? about°C.	d)	-90	
a) c) Crud a)	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo titration	-24 ? about°C.	d)	-90	
a) c) Crud a) b)	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo titration precipitation	-24 ? about°C.	d)	-90	
a) c) Crud a) b) c) d)	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo titration precipitation solvent extraction	-24 ? about°C.	d) heir boil	-90 ing points. Such a process is called	
a) c) Crud a) b) c) d)	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo titration precipitation solvent extraction fractional distillation	-24 ? about°C.	d) heir boil	-90 ing points. Such a process is called	
a) c) Crud a) b) c) d)	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo titration precipitation solvent extraction fractional distillation  re are several products that are	-24 ? about°C.  Ins, can be separated by the condensed from a disti	d) heir boil	-90 ing points. Such a process is called	
a) c) Crud a) b) c) d)	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo  titration precipitation solvent extraction fractional distillation  re are several products that are  Number  1 2	e condensed from a disti  Compound  C <sub>16</sub> H <sub>34</sub> C <sub>2</sub> H <sub>4</sub>	d) heir boil	-90 ing points. Such a process is called	
a) c) Crud a) b) c) d)	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo titration precipitation solvent extraction fractional distillation  re are several products that are  Number 1 2 3	e condensed from a disti  Compound  C <sub>16</sub> H <sub>34</sub> C <sub>2</sub> H <sub>4</sub> C <sub>12</sub> H <sub>26</sub>	d) heir boil	-90 ing points. Such a process is called	
a) c) Crud a) b) c) d)	CH <sub>3</sub> Cl CH <sub>3</sub> Br  boiling point of CH <sub>3</sub> Br will be a  4 -30  de oil, a mixture of hydrocarbo  titration precipitation solvent extraction fractional distillation  re are several products that are  Number  1 2	e condensed from a disti  Compound  C <sub>16</sub> H <sub>34</sub> C <sub>2</sub> H <sub>4</sub>	d) heir boil	-90 ing points. Such a process is called	

## 7. Numerical response question

Left just	tify you	r answ	er in th	e boxes provided.

Liz has four <u>unlabelled</u> bottles that contain one of the following: ethane, ethanol, ethyl ethanoate or Ethanoic acid. Liz tests the four solutions and has the following observations.

Compound	Solubility in water	<b>Boiling Point</b>	Odor
1	Not soluble	-89 °C	Odorless
2	Somewhat soluble	77 °C	Sweet
3	Highly soluble	78 °C	Sharp, antiseptic smell
4	Highly soluble	118 °C	Sharp vinegar smell

Using Liz's observations, the compounds are:					
	—, ————, -				
Ethane	Ethanoic acid	Ethyl ethanoate	Ethanol		

## **Solutions:**

- 1. A
- 2. A
- 3. C
- 4. A
- 5. D
- 6. A
- 7. 1423