

## Chemguide – questions

### NAMING ORGANIC COMPOUNDS: 1

**Important:** These questions cover all the compounds on this page. If you are doing this sensibly, you will only be looking at one or two types of compounds at a time. I have written the questions so that you can just answer those you are currently interested in. Later questions will, however, assume that you are confident with things covered in earlier ones.

#### 1. Alkanes

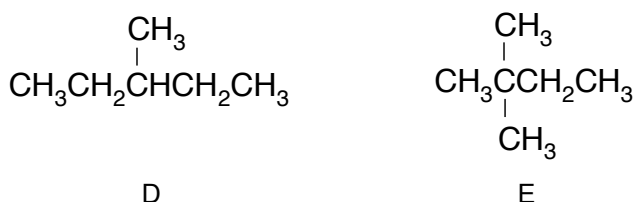
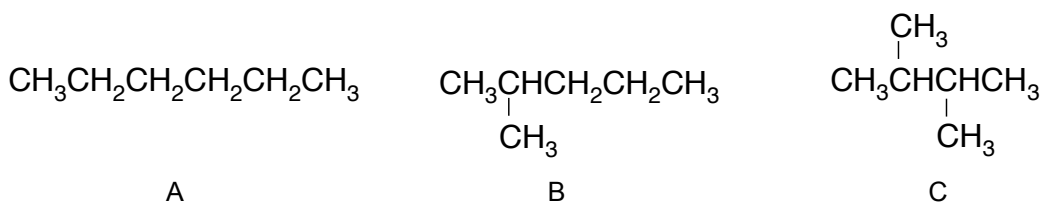
a) Draw the structures for the following compounds:

(i) 2-methylpropane

(ii) 2,3-dimethylpentane

(iii) 3-ethyl-2,4-dimethylhexane

b) Name the following compounds, all of which have the molecular formula  $C_6H_{14}$ :



#### 2. Cycloalkanes

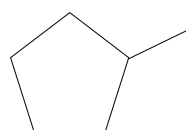
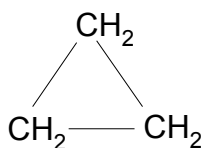
a) Draw the structures for the following compounds:

(i) cyclobutane

(ii) cyclopentane

(iii) 1,3-dimethylcyclohexane

b) Name these compounds:



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### 3. Alkenes

a) Draw the structures for the following compounds:

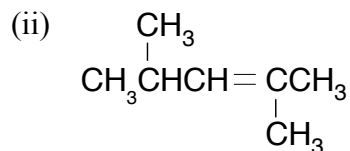
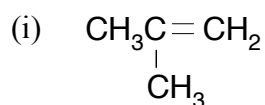
(i) but-2-ene

(ii) 2-methylbut-2-ene

(iii) 2,3-dimethylbut-2-ene

(iv) 3-ethyl-2-methylpent-1-ene

b) Name these compounds:



### 4. Compounds containing halogens

a) Draw the structures for the following compounds:

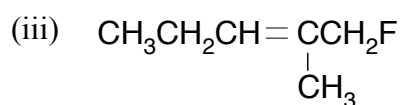
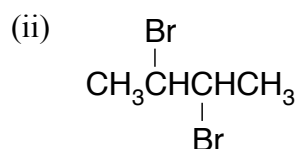
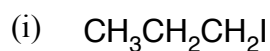
(i) tetrachloromethane

(ii) 1,1-dichloroethene

(iii) 1,2-dibromo-2-methylbutane

(iv) 1,2-dibromocyclohexane

b) Name these compounds:



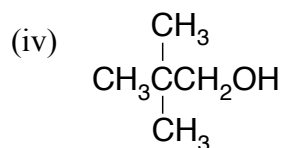
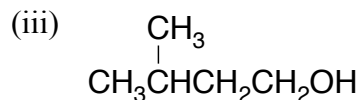
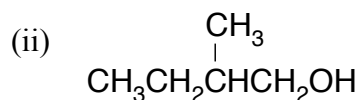
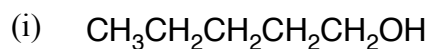
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### 5. Alcohols

a) Draw the structures for the following compounds:

- (i) ethanol
- (ii) 2-methylpropan-2-ol
- (iii) butan-2-ol
- (iv) but-2-en-1-ol

b) Name these compounds:

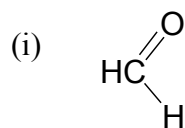


### 6. Aldehydes and ketones

a) Draw the structures for the following compounds:

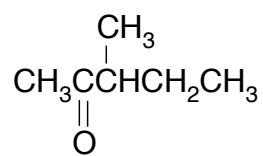
- (i) ethanal
- (ii) butanone (also known as butan-2-one, but the 2 is unnecessary and is often left out)
- (iii) 2-methylpropanal
- (iv) 3-methylpentan-2-one

b) Name these compounds:

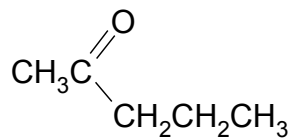


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(ii)



(iii)



(iv)

