Year 11 Organic Chemistry test

1) Name the following compounds

a) _____

b) _____

c) _____

d) _____

e) _____

f) _____

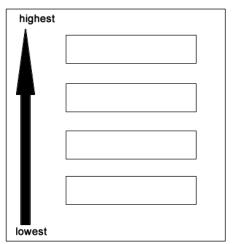
$$\begin{array}{c} & \text{CH}_3 \\ & \text{CH}_2 \\ \text{CH}_2 \\ & \text{CH}_2 \\ \text{CH}_2 \\ & \text{CH}_2 \\ \end{array}$$

| ٠, | _ | | |
|----|-----|--|--|
| 2) | Dra | w structural formulae of the following compounds | |
| | a) | 2,4-dimethylpentane | |
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| | | | |
| | | | |
| | b) | 2-bromo-3-chloropent-1-ene | |
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| | | | |
| | | | |
| | c) | 4-methylpent-2-yne | |
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| | | | |
| | | | |
| | d) | Butyl ethanoate | |
| | | | |
| | | | |
| | ۵) | 2 chloroport 2.2 dial | |
| | e) | 3-chloropent-2,3-diol | |
| | | | |
| | | | |
| | f) | 2-bromobutanoic acid | |
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| | | | |
| | | | |

| Name | _ Name | |
|---|----------------------------------|-------------------|
| | | |
| | | |
| | | 4 marks |
| A 400.0 gram sample of hexane is obt Show all working out. | ained. What mass of the sample i | is due to carbon? |
| | | 2 marks |
| Name all the possible products from a a) Propene and Cl ₂ gas. | n addition reaction between: | |
| b) But-2-ene and HCl gas | | |
| | | 2 marks |
| Write a balanced chemical equation fo | or the combustion of butane gas. | |
| | | 3 marks |
| What reactants must be mixed to form | n butyl propanoate. | |
| | | 2 marks |
| | | 2 mar |

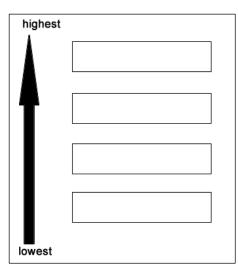
8) Place the following in order of increasing solubility in water.

Hexanoic acid, methanoic acid, ethanoic acid, butanoic acid



4 marks

9) Place the following in order of increasing melting temperature. Hexan-1-ol, methanol, ethanol, butan-1-ol



4 marks

10) Complete the table below.

| , complete the table selecti | | | | |
|--|--|--|--|--|
| Name | Structural formula | Semi-structural formula | | |
| | CH ₃ —CH ₂ —CH——CH ₂ —CH ₃ CH ₃ | | | |
| 1,3-dibromo-4-methylhexane | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | CHCl ₂ CH ₂ C(CH ₃) ₂ CH ₂ CHCH ₂ | | |
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