## 4 Nomenclature

## 4.1 Provide the IUPAC name for the following molecules:

e.

t. 
$$H_2N$$
 $NH_2$ 

m.

- 4.2 Provide the IUPAC name for the following molecules:
- **a.** CH<sub>3</sub>CH<sub>2</sub>CH(CH<sub>3</sub>)CH<sub>2</sub>CH(CHO)CH<sub>3</sub>
- $\mathbf{c}$ .  $(CH_3)_3CCH_2C(CH_3)_3$
- d.  $C(CH_3)_4$
- f.  $CH_3C(CI)_2CH(CH_3)_2$
- h. (CH<sub>3</sub>CH<sub>2</sub>)<sub>2</sub>CHCH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>
- j. CH<sub>3</sub>CH(CH<sub>3</sub>)CCCH<sub>2</sub>CH<sub>3</sub>
- 4.3 For each of the following, state why the given names are incorrect, and give the correct IUPAC names and provide the corresponding structure:
- a. 2-dimethylbutane
- b. 3-chloro-4-methylpentane
- c. 2-ethylhexane
- d. 3-isopropylpentane
- e. 1,1-dimethylbutane