Identification and Naming of Organic Compounds, Extra Exercises

1. In the following questions, the IUPAC names of a variety of organic compounds are provided. Draw a structural diagram for each compound and identify the organic family to which it belongs.
(a) 2-bromopentane
(c) butanoic acid
(e) 1-butanol
(g) 1,1 dichloro-2,2-difluoroethane
(i) 2-methyl-2-propanol
(j) propanamide
2. Give the IUPAC name for the following organic compounds represented by the given structural formula.
(a)

(b) $\mathrm{Cl}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{Cl}$
(c) $\mathrm{CH}_{3}-\mathrm{C}-\mathrm{OH}$
$\stackrel{1}{\mathrm{O}}$
(d) $\mathrm{CH}_{3}-\mathrm{C}-\mathrm{O}-\mathrm{CH}_{3}$ $\stackrel{\|}{\mathrm{O}}$
3. In the following questions, the IUPAC names of a variety of organic compounds are provided. Draw a structural diagram for each compound and identify the organic family to which it belongs.
(a) 2-bromopentane

(c) butanoic acid
(b) 1,4-dichlorobenzene

organic halide
(d) ethyl methanoate

(e) 1-butanol
$\mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{OH}$ alcohol
(g) 1,1 dichloro-2,2-difluoroethane

organic halide
(i) 2-methyl-2-propanol

alcohol

(f) propanal
 aldehyde
(h) trimethylamine
 amine
(j) propanamide
 amide
4. Give the IUPAC name for the following organic compounds represented by the given structural formula.
(a)

(b) $\mathrm{Cl}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{Cl}$ 1,3-dichloropropane
2-butanol
(c) $\mathrm{CH}_{3}-\mathrm{C}-\mathrm{OH}$

ethanoic acid
(d) $\mathrm{CH}_{3}-\mathrm{C}-\mathrm{O}-\mathrm{CH}_{3}$
methyl ethanoate
