問1 次の化学英語を和訳せよ。

(1) thermodynamics (2) neutralization (3) solution (4) main chain (5) impurity

(6) nucleophile (7) reactant (8) separation (9) crystal (10) synthesis

問2 次の英文を和訳せよ。

(1) A carbon atom can form bonds to a maximum of four other atoms; these can be either carbon atoms or atoms of other elements.

- (2) Hydrocarbons containing carbon-carbon multiple bonds are described as being unsaturated, because the carbon atoms involved in a multiple bond can bond to one or more additional atoms.
- (3) We can condense the structural formulas by omitting some of the C-H bonds.
- (4) Give the formulas for the normal (or straight-chain) alkanes with six and eight carbon atoms.
- (5) That is, the molecules have the same formulas but different arrangements of the atoms.
- (6) When a group is substituted for a hydrogen on an alkane chain, we call this group a substituent.

問3 次の化合物を英語で命名せよ。ただし、特性基が主基となるための順位は、カルボン酸>エステル>アルデヒド>ケトン>アルコール>チオール>アミンの順である。

(1) (2) (3) (4) $H_2N \longrightarrow SH \longrightarrow NH_2$ $Br \longrightarrow NH_2$ (5) (6) (7) $SCH_3 \longrightarrow OH$ $CH_3O \longrightarrow CH_3O \longrightarrow H_2N \longrightarrow COOH$

問4 次の名前の化合物の構造を記せ。

 $2\hbox{-}(4\hbox{-}cyclohexa\hbox{-}2,5\hbox{-}dienylbuta\hbox{-}1,3\hbox{-}diynyl)\hbox{-}6\hbox{-}(3\hbox{-}cyclopent\hbox{-}1\hbox{-}enyl\hbox{-}2\hbox{-}methylbuta\hbox{-}1,3\hbox{-}dienyl)naphthalene\hbox{-}1,3\hbox{-}diolarene and a superior of the contraction of$