Structural and stereo isomerism

101. Racemic mixture is formed by mixing two

(a) Isomeric compounds

(b) Chiral compounds

(c) Meso compounds

(d) Optical isomers

102. Which of the following does not show geometrical isomerism

(a) 1, 2 dichloro-1-pentene

(b) 1, 3-dichloro-2-pentene

(c) 1, 1-dichloro-1-pentene

(d) 1, 4-dichloro-2-pentene

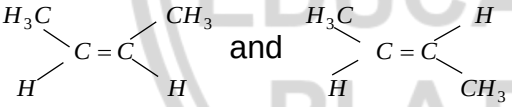
103.  and

exhibit which isomerism

(a) Position isomerism

(b) Geometrical isomerism

(c) Optical isomerism

(d) Functional isomerism

104. Which compound is chiral

(a) butane

(b) 1-chloro-2-methyl butane

(c) 2-methyl butane

(d) 2-methyl propane

105. Methyl acetate and propionic acid are

(a) Functional isomer

(b) Structural isomer

(c) Stereoisomer

(d) Geometrical isomer

106. Which compound shows *cis-trans* isomerism

(a) 1-butene (b) 2-propene

(c) 2-butene (d) Benzene

107. Isomers of propionic acid are

(a) $HCOOC_2H_5$ and CH_3COOCH_3

(b) $HCOOC_2H_5$ and $C_3H_7COOCH_3$

(c) CH_3COOCH_3 and C_3H_7OH

(d) C_3H_7OH and CH_3COCH_3

108. The functional isomer of ethyl alcohol is

(a) CH_3OCH_3

(b) CH_3COCH_3

(c) CH_3COOH

(d) CH_3CH_2CHO

109. Disymmetric object is one which is

(a) Superimposable on its mirror image

(b) Non-superimposible on its mirror image

(c) Optically inactive

(d) Achiral

110. Geometrical isomers differ in

(a) Position of atoms

(b) Length of carbon

(c) Spatial arrangement of atoms

(d) Position of functional group

111. Which of the following hydride is capable of showing conformations

(a) $NH_2 - NH_2$

(b) B_2H_6

(c) CH_4

(d) None of these

112. Which of the following is an chiral compound

(a) Hexane

(b) Methane

(c) *n*-butane

(d) 2,3,4-trimethyl hexane

113. What is the possible number of optical isomers for a compound containing 2-dissimilar asymmetric carbon atom

(a) 2 (b) 4

(c) 6 (d) 8

114. Which of the following compounds is optically active

(a) $(CH_3)_2CHCH_2OH$

(b) CH_3CH_2OH

(c) CCl_2F_2

(d) $CH_3CHOHC_2H_5$

115. Optically active compound is

(a) 3-chloropentane

(b) 2-chlorobutane

(c) 2-chloropropane

(d) None of these

116. If a carbon atom is attached to $-H, -OH, -COOH$ and $-OCOC_2H_5$ number of chiral *C* – atoms in compound is

(a) 1 (b) 2

(c) 3 (d) 4

117. Isomerism due to rotation round single bond of carbon-carbon is

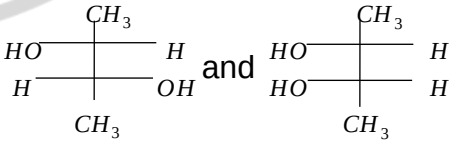
(a) Conformation

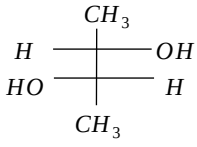
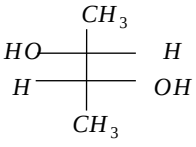
(b) Enantiomerism

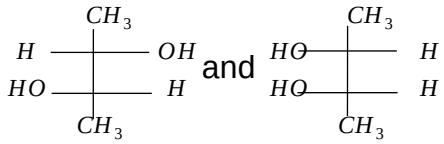
(c) Diasterio isomerism

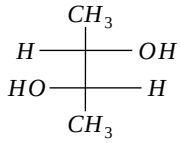
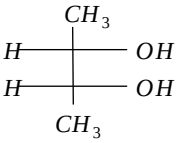
(d) Position isomerism

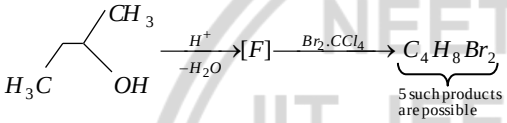
118. Which of the following pairs of compounds are enantiomers

(a)  and

(b)  and 

(c)  and

(d)  and 

119. 

How many structures of *F* is possible

(a) 2 (b) 5

(c) 6 (d) 3

120. An enantiomerically pure acid is treated with racemic mixture of an alcohol having one chiral carbon. The ester formed will be

(a) Optically active mixture

(b) Pure enantiomer

(c) Meso compound

(d) Racemic mixture