

Date Planned ://	Daily Tutorial Sheet-13	Expected Duration : 90 Min
Actual Date of Attempt : / /	Level-3	Exact Duration :

- 147. 2-butene +  $Br_2 \xrightarrow{anti} Addition$   $H \xrightarrow{CH_3} Br \\ Br \xrightarrow{CH_3} H$  and enantiomer. 2-butene is
  - (A) cis (B) trans (C) both (D) none
- **148.** (A) cis-2-butene  $\xrightarrow{\text{CH}_3\text{CO}_3\text{H}}$  I (B) trans-2-butene  $\xrightarrow{\text{CH}_3\text{CO}_3\text{H}}$  II

Correct statements are

- (A) I is racemic mixture by anti addition (B) II is meso compound by anti addition
- (C) I is meso compound by syn addition (D) II is racemic compound by syn addition
- 149.  $B \stackrel{BH_3/THF}{\longleftarrow} CH_2 \stackrel{H_3O^+}{\longrightarrow} A$

A and B are

- (A) both  $CH_2OH$  (B) both  $CH_3$  OH
- (C)  $CH_2OH$ ,  $CH_3$  (D)  $CH_3$   $CH_2OH$ ,
- **150.** (a) How many total stereoisomers are possible for 2, 3 dihydroxy butane. Out of these how many are optically active and how many are optically inactive?
  - (b)  $CH_3 \xrightarrow{H^+} A$ . Identify A with a proper mechanism
- **151.** Identify product (A) and (B) in following reaction sequence.

  Natural Rubber  $\xrightarrow{1. O_3}$  (A)  $\xrightarrow{Zn-Hg}$  (B)

  Natural Rubber  $\xrightarrow{2. Zn-H_2O}$  (A)  $\xrightarrow{Zn-Hg}$  (B)
- 152. There are six different alkenes A, B, C, D, E and F. Each on addition of one mole of hydrogen gives G which is the lowest molecular weight hydrocarbon containing only one asymmetric carbon atom. None of the above alkene give acetone as a product on ozonolysis. Give the structures of A to F. Identify the alkenes among these that is likely to give a ketone containing more than five carbon atoms on treatment with a warm conc. solution of alkaline  $KMnO_4$ . Show various configurations of G in Fischer projection.