Vidyamandir Classes
Gurukul for IIT/JEE & Medical Preparation

Date Planned : __ / __ / __	Daily Tutorial Sheet-2	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level-1	Exact Duration :_____

16. Ozonolysis of an organic compounds gives formaldehyde as one of the products. This confirms the presence of :

(A) two ethylenic double bonds **(B)** a vinyl group

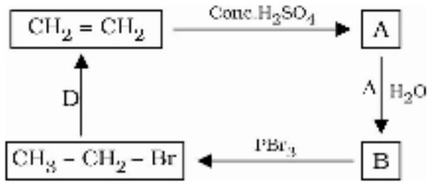
(C) an *iso*-propyl group **(D)** an acetylenic triple bond

17. Ozonolysis of an organic compound A produces acetone and propionaldehyde in equimolar mixture. Identify A from the following compounds.

(A) 2-methyl-1-pentene **(B)** 1-pentene

(C) 2-pentene **(D)** 2-methyl-2-pentene

18. Identify A and D in the following sequence of reactions :



(A) Methanol and bromoethane

(B) Ethyl hydrogen sulphate and alcoholic KOH

(C) Ethyl hydrogen sulphate and aqueous KOH

(D) Ethanol and alcoholic KOH

19. One mole of a symmetrical alkene on ozonolysis gives two moles of an aldehyde having a molecular mass of 44 u. The alkene is :

I. exist as cis-trans isomer II. has one positional isomer

III. has one chain isomer IV. has two ring chain isomer

Choose correct.

(A) Only I **(B)** I & II **(C)** II & IV **(D)** I, II, III & IV

20. Which of the following is the predominant product in the reaction of HOBr with propene?

(A) 2-bromo-1-propanol **(B)** 3-bromo-1-propanol

(C) 2-bromo-2-propanol **(D)** 1-bromo-2-propanol

21. In the following sequence of reactions, the alkene affords the compound 'B'

$$CH_3CH_2CH = CHCH_2CH_3 \xrightarrow{O_3} A \xrightarrow[Zn]{H_2O} B$$

The compound B is :

(A) CH_3CH_2CHO **(B)** CH_3COCH_3 **(C)** $CH_3CH_2COCH_3$ **(D)** CH_3CHO

22. In the reactions, $B \xleftarrow{\text{Lindlar catalyst} / H_2} RC = CR \xrightarrow{Na / NH_3} A$

A and B are geometrical isomers. Then :

(A) A is *cis* and B is *trans* **(B)** A is trans and B is *cis*

(C) A and B are *cis* **(D)** A and B are *trans*

23. Which one of the following, on ozonolysis gives, both aldehydes and ketones ?

(A) $Me_2C = CHMe$ **(B)** $Me_2C = CMe_2$

(C) $MeCH_2 - C(Me) = CMe_2$ **(D)** $MeCH(Me) - CH = CHMe$

24. An alkene on vigorous oxidation with $KMnO_4$ gives only propionic acid. The alkene is :

(A) $CH_3CH_2CH = CH_2$ **(B)** $CH_3CH = CHCH_3$

(C) $(CH_3)_2C = CH_2$ **(D)** $CH_3CH = CH_2$