Date Planned : __ / __ / __	Daily Tutorial Sheet-3	Expected Duration : 45 Min
Actual Date of Attempt : __ / __ / __	JEE Advanced Archive	Exact Duration :_____

31. The kind of delocalisation involving sigma bond orbitals is called_____. **(1994)**

32. The bond dissociation energy needed to form the benzyl radical from toluene is_____ than the formation of the methyl radical from methane. **(1994)**

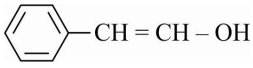
33. Write the IUPAC name of $CH_3CH_2CH = CH - COOH$. **(1996)**

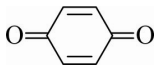
34. How many optically active stereoisomers are possible for butane-2, 3-diol ? **(1997)**

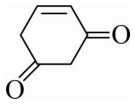
(A) 1 **(B)** 2 **(C)** 3 **(D)** 4

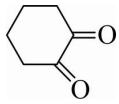
35. Give reasons for the following in one or two sentences. The central carbon-carbon bond in 1, 3-butadiene is shorter than that of n-butane. **(1998)**

***36.** Tautomerism is exhibited by : **(1998)**

(A) 

(B) 

(C) 

(D) 

***37.** Which of the following compounds will show geometrical isomerism ? **(1998)**

(A) 2-butene **(B)** propene

(C) 1-phenyl propene **(D)** 2-methyl-2-butene

38. The optically active tartaric acid is named as D – (+) -tartaric acid because it has a positive : **(1999)**

(A) optical rotation and is derived from D-glucose

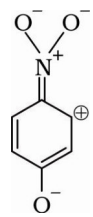
(B) pH in organic solvent

(C) optical rotation and is derived from D – (+) -glyceraldehyde

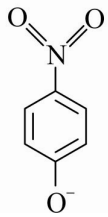
(D) optical rotation when substituted by deuterium

39. Discuss the hybridization of carbon atoms in allene (C_3H_4) and show the π -orbital overlaps. **(1999)**

40. The most unlikely representation of resonance structures of p-nitrophenoxide ion is : **(1999)**



(A)



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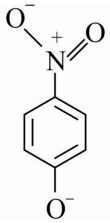

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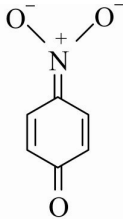
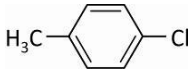


(D)

***41.** The IUPAC name(s) of the following compound is(are) : **(2000)**



(A) 4-chlorotoluene **(B)** 4-methylchlorobenzene

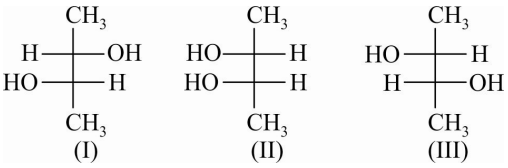
(C) 1-chloro-4-methylbenzene **(D)** 1-methyl-4-chlorobenzene

42. Which of the following compounds will exhibit geometrical isomerism ? **(2000)**

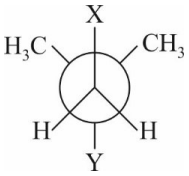
(A) 1-phenyl-1-butene **(B)** 3-phenyl-1-butene

(C) 2-phenyl-1-butene **(D)** 1,1-diphenyl-1-propene

43. Identify the pairs of enantiomers and diastereomers from the following : **(2000)**



***44.** In the Newman's projection for 2, 2-dimethylbutane X and Y can respectively be : **(2000)**



(A) H and H **(B)** H and C_2H_5 **(C)** C_2H_5 and H **(D)** CH_3 and CH_3

***45.** The compound in which C uses its sp^3-hybrid orbitals for bond formation is : **(2000)**

(A) HCOOH **(B)** $(H_2N)_2CO$ **(C)** $(CH_3)_3COH$ **(D)** CH_3CHO