Date Planned : __ / __ / __	Daily Tutorial Sheet-2	Expected Duration : 45 Min
Actual Date of Attempt : __ / __ / __	JEE Main Archive	Exact Duration :_____

16. The increasing order of stability of the following free radicals is : **(2006)**

(A) $(CH_3)_2\dot{C}H < (CH_3)_3\dot{C} < (C_6H_5)_2\dot{C}H < (C_6H_5)_3\dot{C}$

(B) $(C_6H_5)_3\dot{C} < (C_6H_5)_2\dot{C}H < (CH_3)_3\dot{C} < (CH_3)_2\dot{C}H$

(C) $(C_6H_5)_2\dot{C}H < (C_6H_5)_3\dot{C} < (CH_3)_3\dot{C} < (CH_3)_2\dot{C}H$

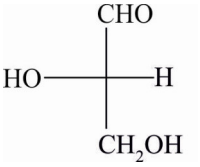
(D) $(CH_3)_2\dot{C}H < (CH_3)_3\dot{C} < (C_6H_5)_3\dot{C} < (C_6H_5)_2\dot{C}H$

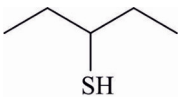
17. Increasing order of stability among the three main conformations (i.e. Eclipse, Anti, Gauche) of 2-fluoroethanol is : **(2006)**

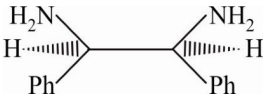
(A) Eclipse, Gauche, Anti **(B)** Gauche, Eclipse, Anti

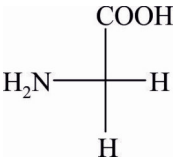
(C) Eclipse, Anti, Gauche **(D)** Anti, Gauche, Eclipse

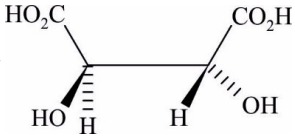
18. Which of the following molecules is expected to rotate the plane of plane polarized light ? **(2007)**

(A) 

(B) 

(C) 

(D) 

19. The absolute configuration of  is : **(2008)**

(A) S, S **(B)** R, R **(C)** R, S **(D)** S, R

20. Identify the correct order of boiling points of the following compounds : **(2008)**

$CH_3CH_2CH_2CH_2OH$(1) $CH_3CH_2CH_2CHO$(2) $CH_3CH_2CH_2COOH$(3)

(A) 1 > 2 > 3 **(B)** 3 > 1 > 2

(C) 1 > 3 > 2 **(D)** 3 > 2 > 1

21. The correct decreasing order of priority for the functional groups of organic compounds in the IUPAC system of nomenclature is : **(2008)**

(A) –COOH, $-SO_3H$, $-CONH_2$, –CHO **(B)** $-SO_3H$, –COOH, $-CONH_2$, –CHO

(C) –CHO, –COOH, $-SO_3H$, $-CONH_2$ **(D)** $-CONH_2$, –CHO, $-SO_3H$, –COOH

22. The IUPAC name of neopentane is : **(2009)**

(A) 2-methylbutane **(B)** 2, 2-dimethylpropane

(C) 2-methylpropane **(D)** 2,2-dimethylbutane

23. The alkene that exhibits geometrical isomerism is : **(2009)**

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

(C) 2-butene **(D)** 2- methyl-2-butane

24. The number of stereoisomers possible for a compound of the molecular formula $CH_3 - CH = CH - CH(OH) - Me$ is : **(2009)**

(A) 3 **(B)** 2 **(C)** 4 **(D)** 6

25. The correct stability order of the following resonance structure is : **(2009)**

(I) $H_2C = \overset{+}{N} = \overset{-}{N}$ **(II)** $H_2\overset{+}{C} - N = \overset{-}{N}$ **(III)** $H_2\overset{-}{C} - \overset{+}{N} \equiv N$ **(IV)** $H_2\overset{-}{C} - N = \overset{+}{N}$

(A) (I) > (II) > (IV) > (III) **(B)** (I) > (III) > (II) > (IV)

(C) (II) > (I) > (III) > (IV) **(D)** (III) > (I) > (IV) > (II)

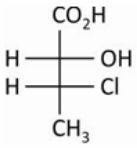
26. Arrange the carbanions, $(CH_3)_3\overline{C}$, $\overline{C}Cl_3$, $(CH_3)_2\overline{C}H$, $C_6H_5\overline{C}H_2$, in order of their decreasing stability : **(2009)**

(A) $C_6H_5\overline{C}H_2 > \overline{C}Cl_3 > (CH_3)_3\overline{C} > (CH_3)_2\overline{C}H$ **(B)** $(CH_3)_2\overline{C}H > \overline{C}Cl_3 > C_6H_5\overline{C}H_2 > (CH_3)_3\overline{C}$

(C) $\overline{C}Cl_3 > C_6H_5\overline{C}H_2 > (CH_3)_2\overline{C}H > (CH_3)_3\overline{C}$ **(D)** $(CH_3)_3\overline{C} > (CH_3)_2\overline{C}H > C_6H_5\overline{C}H_2 > \overline{C}Cl_3$

27. Which of the following compounds is most reactive to an aqueous solution of sodium carbonate ? **(2009)**

(A)  **(B)**  **(C)**  **(D)** 

28. The absolute configuration of  is : **(2010)**

(A) (2S, 3R) **(B)** (2S, 3S) **(C)** (2R, 3R) **(D)** (2R, 3S)

29. Out of the following, the alkene that exhibits optical isomerism is : **(2010)**

(A) 3-methyl-2-pentene **(B)** 4-methyl-1-pentene

(C) 3-methyl-1-pentene **(D)** 2-methyl-2-pentene

30. If two compounds have the same empirical formula but different molecular formulae, they must have : **(2010)**

(A) different percentage composition **(B)** different molecular weight

(C) same velocity **(D)** same vapour density