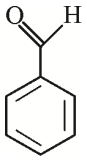
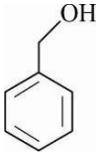
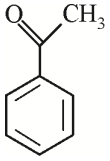
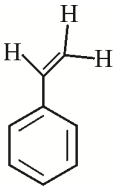
Date Planned : __ / __ / __	Daily Tutorial Sheet-7	Expected Duration : 45 Min
Actual Date of Attempt : __ / __ / __	JEE Advanced (Archive)	Exact Duration :_____

PARAGRAPH FOR QUESTIONS 91 - 92

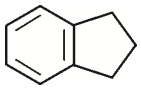
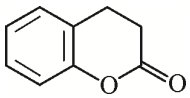
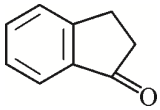
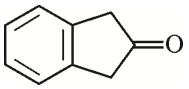
In the following reaction sequence, the compound **J** is an intermediate. $\mathbf{I} \xrightarrow[CH_3COONa]{(CH_3CO)_2O} \mathbf{J} \xrightarrow[\text{(ii) } SOCl_2 \text{ (iii) anhyd. } AlCl_3]{\text{(i) } H_2, Pd/C} \mathbf{K}$

J $(C_9H_8O_2)$ gives effervescence on treatment with $NaHCO_3$ and a positive Baeyer's test.

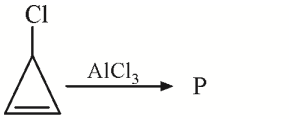
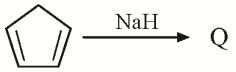
89. The compound **I** is : **(2012)**

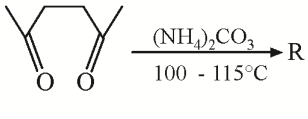
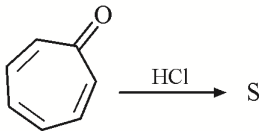
(A)  **(B)**  **(C)**  **(D)** 

90. The compound **K** is : **(2012)**

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

***91.** Among P, Q, R and S, the aromatic compound(s) is(are) : **(2012)**

 ; 

 ; 

(A) P **(B)** Q **(C)** R **(D)** S

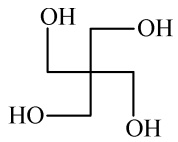
92. The major product H in the given reaction sequence is : **(2012)**

$$CH_3-CH_2-CO-CH_3 \xrightarrow{CN^-} G \xrightarrow[\Delta]{95\%H_2SO_4} H$$

(A) $CH_3-CH=\underset{\displaystyle CH_3}{\overset{\displaystyle |}{C}}-COOH$ **(B)** $CH_3-CH=\underset{\displaystyle CH_3}{\overset{\displaystyle |}{C}}-CN$

(C) $CH_3-CH_2-\underset{\displaystyle CH_3}{\overset{\displaystyle OH\ |}{C}}-COOH$ **(D)** $CH_3-CH=\underset{\displaystyle CH_3}{\overset{\displaystyle |}{C}}-CO-NH_2$

93. The number of aldol reaction(s) that occurs in the given transformation is : **(2012)**

$$CH_3CHO + 4HCHO \xrightarrow{\text{Conc. aq. NaOH}}$$ 

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

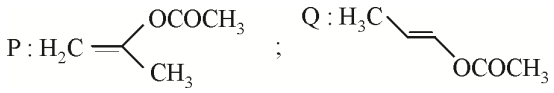
94. The product of acid hydrolysis of P and Q can be distinguished by : **(2013)**

(A) Lucas reagent

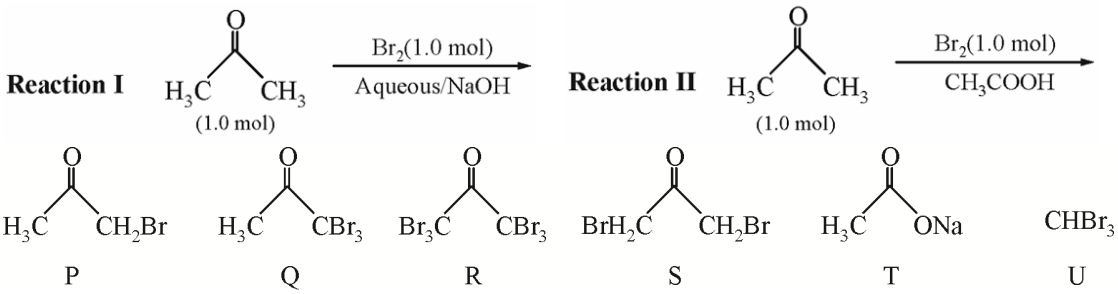
(B) 2, 4-DNP

(C) Fehling's solution

(D) $NaHSO_3$



95. After completion of the reactions (I and II), the origin compound(s) in the reaction mixtures is(are): **(2013)**



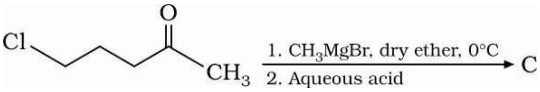
(A) Reaction I : P and reaction II : P

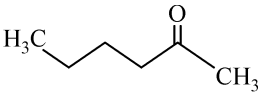
(B) Reaction I : U, acetone and reaction II : Q, acetone

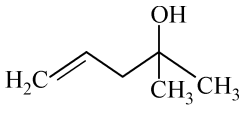
(C) Reaction I : T, U, acetone and reaction II : P

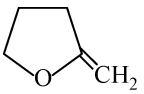
(D) Reaction I : R, acetone and reaction II : S, acetone

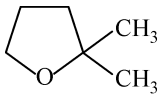
96. The major product in the following reaction is : **(2014)**



(A) 

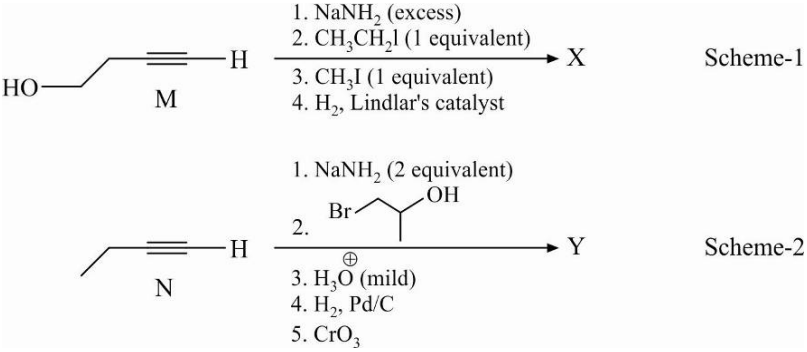
(B) 

(C) 

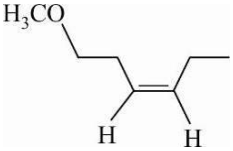
(D) 

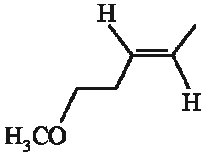
PARAGRAPH FOR QUESTIONS 97 - 98

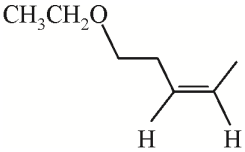
Schemes 1 and 2 describe sequential transformation of alkynes M and N. Consider only the major products formed in each step for both the schemes.

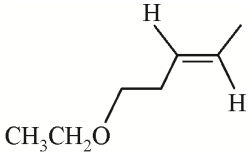


97. The product X is : **(2014)**

(A) 

(B) 

(C) 

(D) 

98. The correct statement with respect to product Y is : **(2014)**

(A) It gives a positive Tollens test and is a functional isomer of X

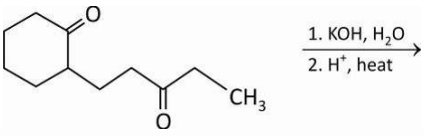
(B) It gives a positive Tollens test and is a geometrical isomer of X

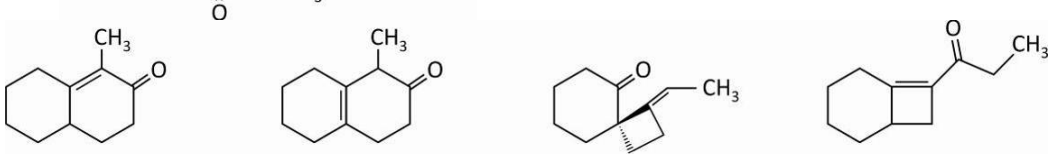
(C) It gives a positive iodoform test and is a functional isomer of X

(D) It gives a positive iodoform test and is a geometrical isomer of X

99. Consider all possible isomeric ketones including stereoisomers of MW = 100. All these isomers are independently reacted with $NaBH_4$. The total number of ketones that gives a racemic product(s) is(are)_____. **(2014)**

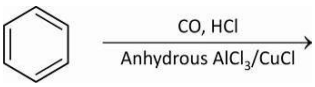
100. The major product of the following reaction is : **(2015)**

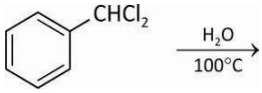




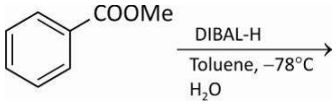
(A) **(B)** **(C)** **(D)**

***101.** Among the following, the number of reaction(s) that produce(s) benzaldehyde is _____. **(2015)**

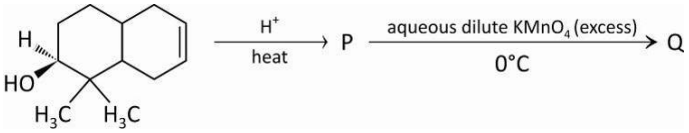
(A) 

(B) 

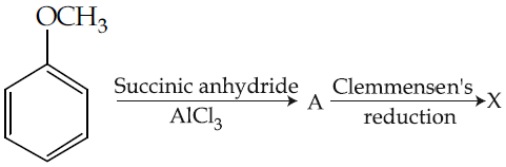
(C) 

(D) 

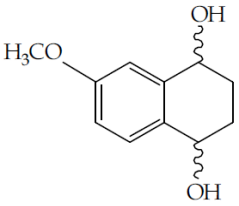
102. The number of hydroxyl group(s) in Q is : **(2015)**

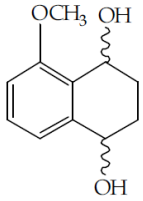


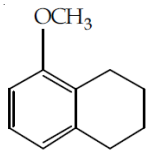
103. Consider the reaction sequence below : **(2016)**



X is :

(A) 

(B) 

(C) 

(D)