K.V.S - 2023

PGT LDCE

Date:- / /

Page:-

(1) Which of the following is not electrophile

(a) $\overset{+}{C}H_3$ (b) SO_3 (c) $H_3\overset{+}{O}$ (d) $\overset{+}{N}O$

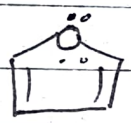
(2) A prussian blue colour is formed during the test of Nitrogen from Lassaigne's extract. blue colouration is obtained because of the formation of

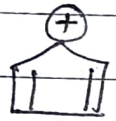
(a) $K_3[Fe(CN)_6]$ (b) $Fe_4[Fe(CN)_6]_3$

(c) $Fe_3[Fe(CN)_6]_2$ (d) $Fe_4[Fe(CN)_5NOS]_3$

(3) Which of the following species is not aromatic

(i) 

(II) 

(III) 

(IV) 

(4) Which of the following will give a positive fehling's test

(i) Benzaldehyde (II) fructose

(III) Acetophenone (IV) Salicylic acid.

(5) Which of the given structure represent Neoprine

(i) $\left\{CH_2-CH=\overset{CH_3}{\overset{|}{C}}-CH_2\right\}_n$ (II) $\left\{CH_2-CH=\overset{Cl}{\overset{|}{C}}-CH_2\right\}_n$

(III) $\left\{\underset{\bigcirc}{CH}-\underset{\bigcirc}{CH}\right\}_n$ (IV) $\left\{CH_2-CH=CH-CH_2\right\}_n$

Date:- / /
Page:-

(6) Consider the following sequence of reaction

(i) $CH_3-C\equiv CH + CH_3MgBr \longrightarrow A + B$

(ii) $A + C_2H_5Cl \longrightarrow C$

'C' is :-

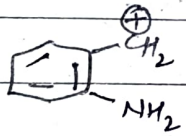
(i) Propane
(ii) $CH_3C\equiv CCH_3$
(iii) $CH_3C\equiv CC_2H_5$
(iv) Butane.

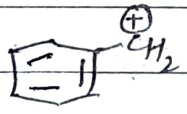
C.

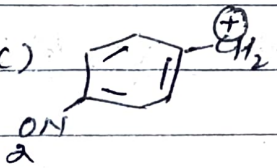
(7) Bayer Reagent Test is given by

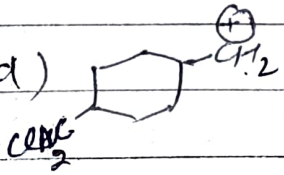
(a) Acetophenone
(b) Anthracene
(c) Acetone
(d) Cinnamaldehyde

(8) Amongst the following the most stable Carbocation is

(a) 

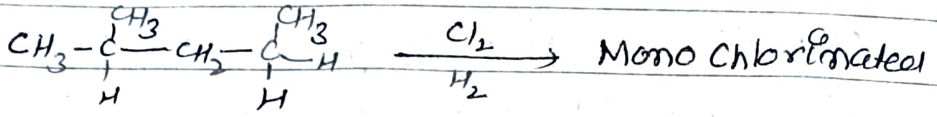
(b) 

(c) 

(d) 

Date:- / /
Page:-

(9) Consider the folbwing reaction



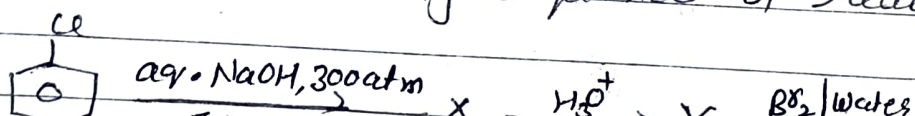
How many optically active compounds are produced in this reaction

(a) 2
(b) 4
(c) 6
(d) 8

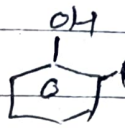
(10) The hinsberg Test for amines, the reaction type is:-

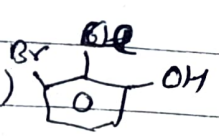
(i) Nucleophilic substitution rxn
(ii) Electrophilic substitution reaction
(iii) Elimination reaction
(iv) Rearrangement reaction.

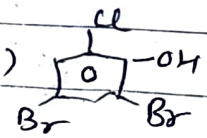
(11) Consider the following sequence of reaction.

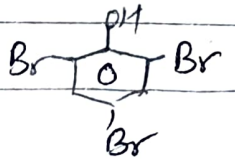


Z is

(a) 

(b) 

(c) 

(d) 

Date:- / /
Page:-

(12) In the given reaction

$$CH_3-CH_2-CH=CH-CH_2CO_2CH_3 \xrightarrow[(ii)\ H_2O]{(i)\ DIBAL-H} A$$

A is

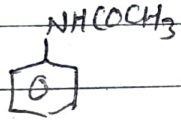
(a) $CH_3-CH_2-CH_2-CH_2-CH_2-CH_2-OH$

(b) $CH_3-CH_2-CH=CH-CH_2-CH_2-OH$

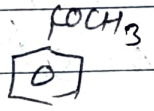
(c) $CH_3-CH_2-CH_2-CH_2-CH_2-CH_2-CH_2-OH$

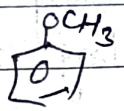
(d) $CH_2=CHCH_2CH_2CH_2CHO$

(13) Which of the following compounds form the meta substitution product as the major product

(i) 

(ii) 

(iii) 

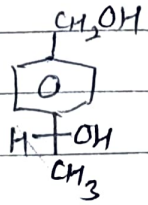
(iv) 

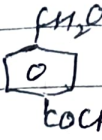
(14) In the given sequence of reaction

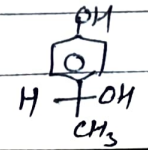
$\xrightarrow{LiAlH_4}$ A $\xrightarrow[HCl]{NaNO_2}$ B

B is

(a) 

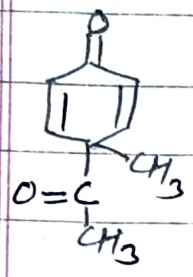
(b) 

(c) 

(d) 

(15) The species which is least stabilised by resonance is

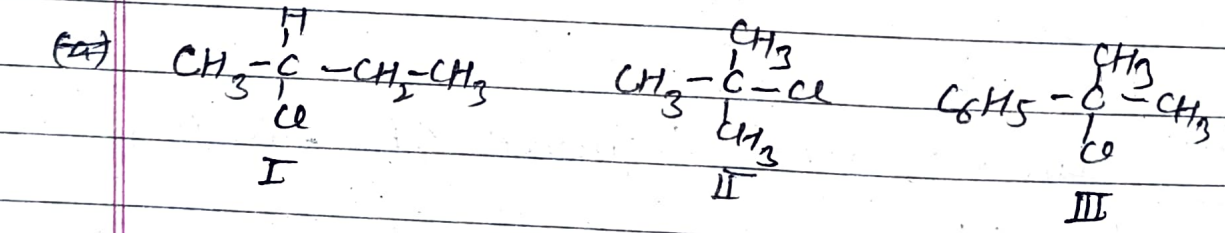
(I) 

(II) 

(III) 

(IV) 

(16) The decreasing order of reactivity of the following halids towards S_N1 is:-



I II III

(1) I > III > II

(2) II > III > I

(3) III > II > I

(4) II = III > I

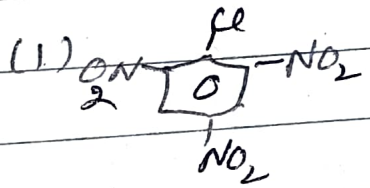
(17) In the given reaction

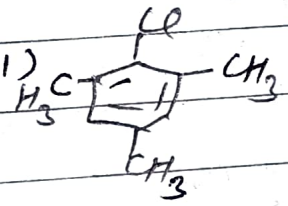
$$CH_3CH=\overset{CH_3}{\overset{|}{C}}-CH_2-CH_3 \xrightarrow[\text{Peroxide}]{HBr} \text{Product}$$

The number of possible stereoisomerism for the product is/are

(I) Two
(II) four
(III) Zero
(IV) Six

(18) Which of these species will undergo Nucleophilic Substitution reaction most readily

(I) 

(II) 

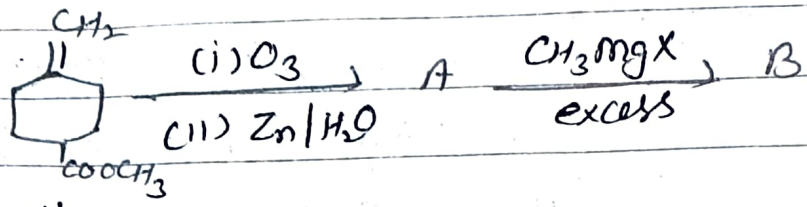
(IV) $CH_2=CH-Cl$

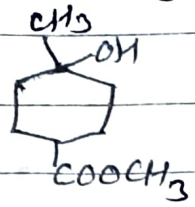
(V) $CH_3O-CH=CH-Cl$

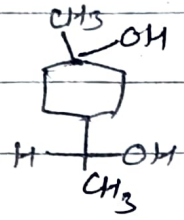
(19) Chloroform is always kept in dark brown bottles. It reacts with the oxygen present in air to form

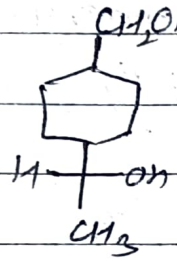
(i) Cl_2
(II) HCOOH
(III) HCHO
(IV) $COCl_2$

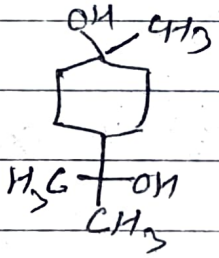
(20) In the given sequence of reaction



(i) 

(ii) 

(iii) 

(iv) 

(21) The number of possible structural isomerism of an alkyne with molecular formula. C_5H_8 is

(a) Two
(b) Three
(c) four
(d) five