NEET : CHAPTER WISE TEST-7

SUBJECT :- CHEMISTRY **DATE.....**

CLASS :- 12th **NAME.....**

CHAPTER :- ALKYL HALIDE **SECTION.....**

(SECTION-A)

1. Which of the following leads to the formation of an alkyl halide ?

(A) $C_2H_5OH \xrightarrow{Red\ P+Br_2}$

(B) $C_2H_5OH \xrightarrow{SOCl_2}$

(C) $C_2H_5OH \xrightarrow{KBr+Conc.H_2SO_4}$

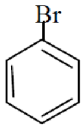
(D) All

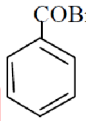
2. Which reaction is termed as Darzen's reaction?

(A) ROH + HCl (B) ROH + PCl_5

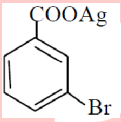
(C) ROH + $SOCl_2$ (D) ROH + PCl_3

3. Silver benzoate reacts with bromine in acetone to form -

(A) 

(B) 

(C) 

(D) 

4. The correct order of polarity of alkyl halides is

(A) RI > RBr < RCl > RF

(B) RF > RCl > RBr > RI

(C) RCl > RF > RBr > RI

(D) None

5. Finkelstein reaction is -

(A) $2CH_3CH_2Cl + Ag_2O$ (dry) $\longrightarrow$ $CH_3CH_2OCH_2CH_3 + 2AgCl$

(B) $CH_3CH_2Br + NaI \xrightarrow{Acetone} CH_3CH_2I + NaBr$

(C) $CH_3CH_2Br + Ag_2O$ (moist) $\longrightarrow CH_3CH_2OH + AgBr$

(D) $CH_3CH_2Cl + NaOCH_3 \longrightarrow CH_3CH_2OCH_3 + NaCl$

6. $C_2H_5Cl + AgF \longrightarrow C_2H_5F + AgCl$ The above reaction is called -

(A) Hunsdiecker (B) Swart

(C) Strecker (D) Wurtz

7. In S_N1 reaction, the first step involves the formation of -

(A) Free radical (B) Carbanion

(C) Carbocation (D) Final product

8. Chlorobenzene is -

(A) More reactive than ethyl bromide

(B) More reactive than isopropyl chloride

(C) As reactive as methyl chloride

(D) Less reactive than benzyl chloride

9. Vinylic halides are unreactive towards nucleophilic substitution because of the following except -

(A) C - X halogen bond is strong

(B) The halogen is bonded to sp^2 carbon

(C) A double bond character is developed in the carbon-halogen bond by resonance

(D) Halide ions are not good leaving groups

10. $CH_3-\underset{CH_3}{\underset{|}{CH}}-\underset{Br}{\underset{|}{CH}}-CH_3 \xrightarrow[\text{Williamson ether synthesis}]{S_N1\ C_2H_5ONa}$ Ether

ether is–

(A) $CH_3-\underset{CH_3}{\overset{OC_2H_5}{\overset{|}{\underset{|}{C}}}}-CH_2-CH_3$

(B) $CH_3-\underset{CH_3}{\underset{|}{CH}}-\underset{OC_2H_5}{\underset{|}{CH}}-CH_3$

(C) Both correct

(D) None is correct

11. (A) $\xrightarrow{Cl_2}$ (B) $\xrightarrow{aq.KOH}$ (C) $\xrightarrow{(O)}$ CH_3CHO, Identify A, B & C -

(A) Ethyl alcohol, ethyl chloride & ethane

(B) Ethane, ethyl chloride & $CH_3–CH_2–OH$

(C) Propane, propyl chloride & $CH_3–CH_2–CH_2–OH$

(D) All the above

12. When ethyl bromide is treated with moist Ag_2O the product is -

(A) Ethyl ether

(B) Ethanol

(C) Ethoxy ethane

(D) All of the above

13. 2,2-Dichloropropane on hydrolysis yields -

(A) Acetone

(B) 2,2-Propane diol

(C) Isopropyl alcohol

(D) Acetaldehyde

14. Propylidene chloride when heated with zinc gives -

(A) Ethene (B) Propene

(C) 1-Butene (D) 3-Hexene

15. Which of the following statement is wrong?

(A) All carbonyl compounds of the general structure $CH_3-\overset{\overset{O}{\|}}{C}-R$ give a positive iodoform test

(B) All secondary alcohols give iodoform reaction

(C) Alkanols of the structure $CH_3CH(OH)$ - R (where R=H, alkyl or aryl) give iodoform reaction.

(D) The only aldehyde giving iodoform reaction is acetaldehyde.

16. The oxidation of $CHCl_3$ by air & light is prevented by adding -

(A) CH_3COOH (B) C_2H_5OH

(C) CH_3CHO (D) CH_3COOCH_3

17. Isocyanide reaction involves the intermediate formation of -

(A) $:CCl_2$ (B) CH_3^+

(C) CH_3^- (D) $CCl_3\bullet$

18. Chloroform when treated with aniline and alcoholic KOH forms -

(A) Phenyl cyanide

(B) Phenyl isocyanide

(C) Phenyl cyanate

(D) Phenyl isocyanate

19. Iodoform test is not given by:

(A) $C_6H_5COC_6H_5$

(B) CH_3COCH_3

(C) $CH_3CH_2COCH_3$

(D) $CH_2CH_2CH_2COCH_3$

20. Catalyst used in the formation of dicholorodifluoromethane is generated from -

(A) $AlCl_3$ + HF (B) $SbCl_5$ + HF

(C) $SbCl_4$ + HF (D) BF_3 + HF

21. Which of the following is primary halide?

(A) Isopropyl halide

(B) Sec-butyl halide

(C) Tert-butyl halide

(D) Neohexyl halide

22. The correct reactivity order of alcohols towards H–X will be

(I) $CH_2 = CH - OH$

(II) $CH_2 = CH - CH_2OH$

(III) $CH_3 - CH_2 - OH$

(IV) $CH_3-\underset{\underset{OH}{|}}{CH}-CH_3$

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

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

23. To form alkane isonitrile, alkyl halide is reacted with:

(A) KCN (B) AgCN

(C) HCN (D) NH_4CN

24. The final product in the following reaction can be used as , $4CH_3 — CH_2 — Cl + 4Na + Pb \longrightarrow$

(A) Anaesthetic

(B) Narcotics

(C) Analgesic

(D) Antiknocking agent

25. Which of the following product is obtained when bleaching powder is distilled with acetone?

(A) CCl_4 (B) $CHCl_3$

(C) $CH_3 — CH_3$ (D) All

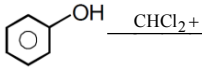
26. Carbylamine reaction is used for the test of

(A) Primary aliphatic amines

(B) Primary aromatic amines

(C) Both (A) and (B)

(D) Secondary aliphatic amines

27.  Product.

About above reaction the incorrect statement is

(A) The name of reaction is Reimer Tiemann's reaction

(B) The intermediate in the reaction is dichlorocarbene

(C) The final product is salicylaldehyde

(D) The final product is benzyl chloride

28. Grignard reagent can't be prepared by

(A) $CH_3 — CH_2 — Cl + Mg \xrightarrow[\text{ether}]{\text{dry}}$

(B) $CH_3-\underset{\underset{Cl}{|}}{CH}-\underset{\underset{Cl}{|}}{CH_2} + Mg \xrightarrow[\text{ether}]{\text{dry}}$

(C) $CH_3-\underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{C}}-Cl + Mg \xrightarrow[\text{ether}]{\text{dry}}$

(D) All of them

29. Carbylamine test is performed by heating alc. KOH with
(A) $CHCl_3$ And Ag
(B) Trihalogenated methane and primary amine
(C) CH_3Cl and $C_2H_5NH_2$
(D) RCN and RNH_2

30. In the reaction of phenol with $CHCl_3$ and aqueous NaOH at 70°C, the eletrophile attacking the ring is
(A) $CHCl_3$ (B) $\dot{C}HCl_2$
(C) $\ddot{C}Cl_2$ (D) $COCl_2$

31. Isobutyl magnesium bromide with dry ether and absolute alcohol gives
(A) $CH_3-\underset{CH_3}{\underset{|}{CH}}-CH_2OH$ and CH_3CH_2MgBr
(B) $CH_3-\underset{CH_3}{\underset{|}{CH}}-CH_2-CH_2-CH_3$ and Mg (OH) Br
(C) $CH_3-\underset{CH_3}{\underset{|}{CH}}-CH_3\,CH_2$ = CH_2 and Mg(OH)Br
(D) $CH_3-\underset{CH_3}{\underset{|}{CH}}-CH_3$ and CH_3CH_2OMgBr

32. Identify 'Z' in the following reaction series, $CH_3.CH_2CH_2Br$

$$\xrightarrow{aq.NaOH}(X)\xrightarrow[Heat]{Al_2O_3}(Y)\xrightarrow{Cl_2/H_2O}(Z)$$

(A) Mixture of $CH_3-\underset{Cl}{\underset{|}{CH}}-\underset{Cl}{\underset{|}{CH_2}}$ and $CH_3-\underset{OH}{\underset{|}{CH}}-\underset{OH}{\underset{|}{CH_2}}$
(B) $CH_3-\underset{OH}{\underset{|}{CH}}-\underset{Cl}{\underset{|}{CH_2}}$
(C) $CH_3-\underset{Cl}{\underset{|}{CH}}-\underset{OH}{\underset{|}{CH_2}}$
(D) $CH_3-\underset{Cl}{\underset{|}{CH}}-\underset{Cl}{\underset{|}{CH_2}}$

33. A mixture of 1–Chloropropane and 2–Chloropropane when treated with alcoholic KOH, it gives
(A) 1–Propene
(B) 2–Propene
(C) Isopropylene
(D) A mixture of 1-propene and 2-propene

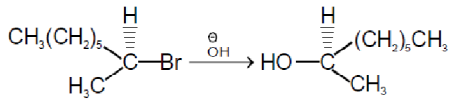
34. For the reaction, $C_2H_5OH+HX\xrightarrow{ZnX_2}C_2H_5X$, the order of reactivity is
(A) HI > HCl > HBr
(B) HI > HBr > HCl
(C) HCl > HBr > HI
(D) HBr > HI > HCl

35. The reaction, $CH_3Br + OH^- \longrightarrow CH_3OH + Br^-$ obeys the mechanism
(A) S_N1 (B) S_N2 (C) E1 (D) E2

(SECTION-B)

36. Butyronitrile may be prepared by heating
(A) Propyl alcohol with KCN
(B) Butyl alcohol with KCN
(C) Butyl chloride with KCN
(D) Propyl chloride with KCN

37. Following reaction is



(A) E^1 (B) SN^1
(C) E^2 (D) SN^2

38. The given reaction is an example of $C_2H_5Br + KCN(aq.) \longrightarrow C_2H_5CN + KBr$
(A) Elimination
(B) Nucleophilic substitution
(C) Electrophilic substitution
(D) Redox change

39. A compound containing two –OH groups attached with one carbon atoms is unstable but which one of the following is stable?
(A) $CH_3CH\langle^{OH}_{OH}$ (B) $CH_3-\underset{OH}{\underset{|}{\overset{OH}{\overset{|}{C}}}}-OH$
(C) $Cl_3C-CH\langle^{OH}_{OH}$ (D) All

40. Most stable carbocation formed from $(CH_3)_3C–Br$, $(C_6H_5)_3CBr$, $(C_6H_5)_2CHBr$ and $C_6H_5CH_2Br$ would be
(A) $C_6H_5\overset{\oplus}{C}H_2$ (B) $(CH_3)_3\overset{\oplus}{C}$
(C) $(C_6H_5)_3\overset{\oplus}{C}$ (D) $(C_6H_5)_2\overset{\oplus}{C}H$

41. The hydrolysis of alkyl halides by aqueous NaOH is best termed as
(A) Electrophilic substitution reaction
(B) Electrophilic addition reaction
(C) Nucleophilic addition reaction
(D) Necleophilic substitution reaction

42. What is the chief product obtained when n-butane is treated with bromine in the presence of light at 130°C ?

(A) $CH_3 — CH_2 — CH_2 — CH_2—Br$

(B) $CH_3-CH_2-\underset{CH_3}{\underset{|}{CH}}-Br$

(C) $CH_3-\underset{CH_3}{\underset{|}{CH}}-CH_2-Br$

(D) $CH_3-\underset{CH_3}{\overset{CH_3}{\underset{|}{\overset{|}{C}}}}-CH_2-Br$

43. Bromination of an alkane as compared to chlorination proceeds

(A) At a slower rate

(B) At a faster rate

(C) With equal rates

(D) With equal or different rate depends upon the temperature

44. Which of the following alkyl halides gives a mixture of alkenes on dehydrohalogenation?

(A) n–Propyl halide

(B) Isopropyl halide

(C) s–Butyl bromide

(D) t–Butyl bromide

45. The products A and B in the reaction

$$CH_3-CH_2-\underset{Br}{\underset{|}{C}}H-CH_3 \xrightarrow{alc.KOH} A+B;$$

are given by the set

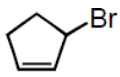
(A) CH_3—CH_2—CH(OH)—CH_3 and CH_3 — CH_2—CH = CH_2

(B) CH_3—CH = CH—CH_3 and CH_3— CH_2 — CH_2 — CH_2OH

(C) CH_3—CH = CH—CH_3 and CH_3—CH_2 — CH = CH_2

(D) CH_3—CH_2 — CH_2 — CH_2OH and CH_3—CH_2—CH = CH_2

46.  $\xrightarrow{Br_2}$ A $\xrightarrow{alcKOh}$ B; What is the structure of B.

(A) 

(B) 

(C) 

(D) 

47. $PH-CH=\overset{CH_3}{\underset{|}{\overset{|}{C}}}-CH_3+HBr \xrightarrow{Peroxide} (X)'X'$ is.

(A) $PH-\underset{Br}{\underset{|}{CH}}=\underset{CH_3}{\underset{|}{CH}}-CH_3$

(B) $PH-CH_2-\underset{CH_3}{\overset{Br}{\underset{|}{\overset{|}{C}}}}-CH_3$

(B) $PH-CH_2-\underset{CH_3}{\underset{|}{CH}}-CH_2-Br$

(D) $PH-CH=\underset{CH_3}{\underset{|}{C}}-CH_2-Br$

48. Chloretone is used as

(A) Anaesthetic (B) Hypnotics

(C) Antiboitic (D) Antiseptic

49. Pyrene is used as

(A) Fire explosive

(B) Fire extinguisher

(C) In lighter gas

(D) In cooking gas

50. Freon's are used as

(A) Coolant (B) Propellant

(C) Solvent (D) All of these