Government of Karnataka

Karnataka School Examination and Assessment Board

II Year PUC Examination March – 2023

Scheme of Evaluation

Subject Code: 34 Subject: Chemistry

	PART-A	
I.	**Select the correct option from the given choices:**	**15×1=15**
1)	Which kind of defect is introduced by doping intrinsic semiconductors? a) Dislocation defect b) Electronic defect c) Interstitial defect d) Schottky defect	
Ans:	**Option b) OR Electronic defect OR Option c) Or Interstitial defect**	1
2)	A binary liquid mixture that forms maximum boiling azeotrope at a specific composition is a) Ethanol + Water b) n - Hexane + n- Heptane c) Benzene + Toluene d) Nitric acid + Water	
Ans:	**Specific composition 68%Nitric acid and 32%H_2O is not mentioned to get maximum boiling point azeotrope. For any option marks should be allotted**	**1**
3)	The value of van't Hoff factor (i) for ethanoic acid in benzene is nearly a) 2 b) 1 c) 0.5 d) 0	
Ans:	**Option c) OR 0.5 OR** $\frac{1}{2}$	**1**
4)	On charging the Lead storage battery, $PbSO_4$ on cathode is converted into a) PbO_2 b) Pb c) PbO d) No change	
Ans:	**Option a) OR PbO_2 OR option b) or Pb**	**1**
5)	In the Arrhenius equation the factor $e^{-\frac{Ea}{RT}}$ corresponds to a) Collision frequency b) Proper orientation c) The fraction of molecules with kinetic energy > Ea d) Threshold energy	
Ans:	**Option c) OR The fraction of molecules with kinetic energy >Ea**	**1**
6)	Which one of the following is not applicable to the phenomenon of adsorption? a) $\Delta G = -Ve$ b) $\Delta S = -Ve$ c) $\Delta H = -Ve$ d) $\Delta H = +Ve$	
Ans:	**Option d) OR $\Delta H = +Ve$**	**1**

7)	What is the role of NaCN in the separation of ZnS and PbS by froth floatation method? a) depressant b) froth stabilizer c) collector d) reductant	
Ans:	**Option a) OR Depressant**	
8)	On complete hydrolysis of XeF_6 with water, the product formed is a) XeF_4 b) XeO_3 c) XeO_2F_2 d) $XeOF_4$	
Ans:	**Option b) OR XeO_3**	**1**
9)	Which of the following element is not regarded as transition element? a) Fe b) Mn c) Sc d) Zn	
Ans:	**Option d) Or Zn**	**1**
10)	M C− bond in metal carbonyls possesses _____. a) Ionic character b) Both σ and π characters c) π − character only d) Ion-dipole forces	
Ans:	**Option b) OR Both σ and π characters**	**1**
11)	Identify chiral molecule in the following compounds. a) 2- Bromobutane b) 1-Bromobutane c) 2- Bromopropane d) 2-Bromo-2-methyl-Propane	
Ans:	**The given particular options are not discussed under chiral concept in NCERT text book. For any option marks should be allotted**	**1**
12)	When CH_3ONa reacts with $(CH_3)_3CBr$, it gives exclusively a) t- Butylmethyl ether b) 2,2-Dimethyl propane c) 2- Methyl propene d) 2-Methyl Propan -2-ol	
Ans:	**Since it is higher application type of question marks should be allotted for any options.**	**1**
13)	Iodoform reaction with NaOI can be used for the detection of the compound a) $C_2H_5COC_2H_5$ b) CH_3CHO c) $CH_3CH_2CH_2OH$ d) $(CH_3)_3COH$	
Ans:	**The given options are not discussed under iodoform reaction concept in NCERT text book. For any option marks should be allotted**	**1**
14)	Nitration of aniline in the strongly acidic medium at 288 K yields a) 2,4,6 – Trinitroaniline b) o and p – Nitroanilines c) m- Nitroaniline d) o, m, and p – Nitroanilines	
Ans:	Option a) OR 2,4,6 – Trinitroaniline Option b) OR o and p – Nitroanilines Option c) OR m- Nitroaniline Option d) OR o, m, and p – Nitroanilines	**1**
15)	Which hormone is an iodinated derivative of amino acid tyrosine? a) Insulin b) Epinephrine c) Thyroxin d) Glucagon	
Ans:	**Option c) OR Thyroxin**	**1**

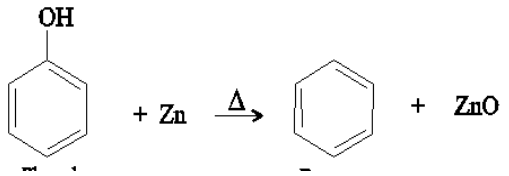
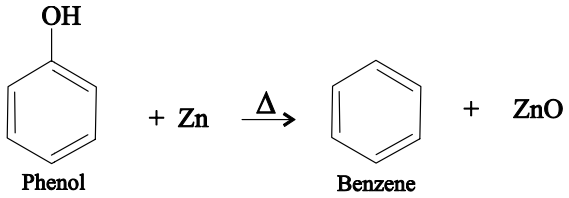
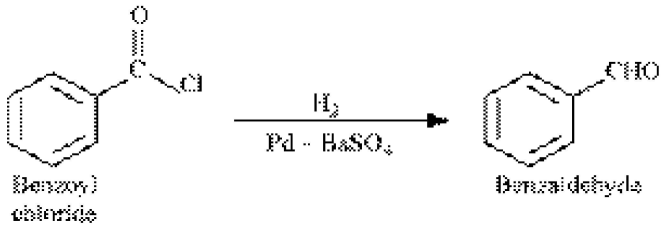
II.	**Fill in the blanks by choosing the appropriate word from those given in the brackets:** **[Radium -226, Anoxia, Norethindrone, Pseudo first order, Diphenyl]**	**5×1=05**
16)	Because of low concentration of O_2 in the blood and tissues of people living at high altitudes, suffer from a disease called _____	
Ans:	**Anoxia**	
17)	Inversion of cane sugar is an example of _____ reaction.	
Ans:	**Pseudo first order**	
18)	Radon is obtained as a decay product of _____.	
Ans:	**Radium -226**	
19)	When Chlorobenzene is treated with sodium in dry ether _____ is formed.	
Ans:	**Diphenyl**	
20)	_____ is a synthetic progesterone derivative, most widely used as an antifertility drug.	
Ans:	**Norethindrone**	
	PART - B	
III.	**Answer any four of the following. Each question carries two marks.**	**4 ×2=08**
21)	**Give any two differences between Frenkel defect and Schottky defect.**	

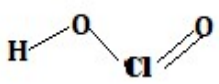
Ans:

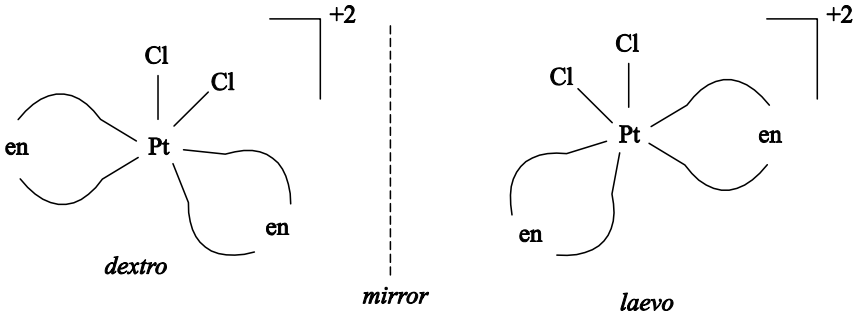
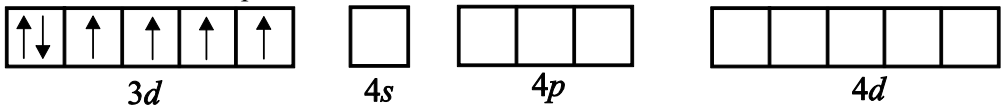
Frenkel defect	Schottky defect
• The smaller ion (cat ion) is dislocated from its normal site to an interstitial site.	• It is caused by missing of equal number of cat ions and anions from lattice points to maintain electrical neutrality.
• It is shown by ionic substances in which there is a large difference in the size of ions	• It is shown by ionic substances in which the cation and anion are of almost similar sizes.
• Density is not changed	• Density decreases
• It creates both vacancy and interstitial defects.	• It creates vacancy defect.

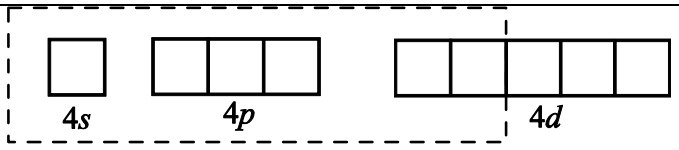
Any two correct answers (Each difference 1mark)

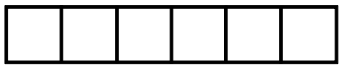
22)	**Λ^0_m for NaCl, HCl and NaAc (Sodium acetate) are 126.4Scm^{2}mol^{-1}, 425.9Scm^2 mol^{-1}and 91.0Scm^2 mol^{-1}respectively. Calculate Λ^0m for HAc (acetic acid).**	
Ans:	$\Lambda^0_{m\,(HAc)} = \Lambda^0_{m\,(HCl)} + \Lambda^0_{m\,(NaAc)} - \Lambda^0_{m\,(NaCl)}$ $= 425.9 + 91.0 - 126.4$ $= 390.5$ Scm^2 mol^{-1}	**1** **1**
23)	**What are the two criteria for the effective collisions between molecules in a chemical reaction?**	
Ans:	i) Activation energy OR Sufficient kinetic energy. ii) Proper orientation of molecules.	**1** **1**

24) a) b)	**Give reason:** **Actinoids exhibit a greater range of oxidation states.** **Zr and Hf have the almost identical atomic radii.**	
Ans: a) b)	Due to very comparable energies (small energy gap) between 5f, 6d and 7s subshells. Due to lanthanoid contraction	**1** **1**
25)	**What happens when Phenol is heated with Zinc dust? Write equation.**	
Ans:	Phenol is converted to benzene on heating with zinc dust.  OR  **OR Self-explanatory equation:2Marks**	**1** 1
26)	**How is Benzoyl chloride converted into Benzaldehyde? Name the reaction.**	
Ans:	Acid chlorides is hydrogenated over catalyst, palladium on barium sulphate to give aldehyde.  (Equation **OR** Explanation**) Any one: 1marks** Rosenmund reduction.	**1** **1**
27)	**What is the role of following chemicals in food?** **a) Sodium benzoate b) Butylated Hydroxy Anisole (BHA).**	
Ans: a) b)	Food preservative Antioxidant.	**1** **1**
28)	**Why soap does not work in hard water?**	
Ans:	Hard water contains calcium and magnesium ions. When soaps are dissolved in hard water, these ions displace sodium or potassium from their salts and form insoluble calcium or magnesium salts of fatty acids. These insoluble salts separate as scum. $2C_{17}H_{35}COONa + CaCl_2 \rightarrow 2NaCl + (C_{17}H_{35}COO)_2Ca$ (Insoluble calcium stearate, scum)	**1** 1

	PART - C	
IV.	**Answer any four of the following. Each question carries three marks.**	**4×3=12**
29)	**Explain the extraction of 'blister copper' from copper matte. Write the balanced equations for the reactions taking place in then convertor.**	
	Copper matte is charged into silica lined convertor. Some silica is added and hot air blast is blown to convert the FeS to FeOand Cu_2S/ Cu_2O to the metallic copper. Following reactions take place: $2FeS + 3O_2 \rightarrow 2FeO + 2SO_2$ $FeO + SiO_2 \rightarrow FeSiO_3$ $2Cu_2S + 3O_2 \rightarrow 2Cu_2O + 2SO_2$ $2Cu_2O + Cu_2S \rightarrow 6Cu + SO_2$ The solidified copper obtained has blistered appearance due to the evolution of SO_2 and so it is called blister copper	**1** 1 1
30)	**Write the chemical equations with reaction conditions involved in the manufacture of Nitric acid by Ostwald's process.**	
Ans:	**Step-1: Oxidation of ammonia to nitric oxide:** $4NH_3(g) + 5O_2(g) \xrightarrow[500\ K,\ 9\ bar]{Pt/Rh\ gauze\ catalyst} 4NO(g) + 6H_2O(l)$ (from air) **Step-2: Oxidation of NO to NO_2:** $2NO_{(g)} + O_{2(g)} \longrightarrow 2NO_{2(g)}$ **Step-3: Formation of nitric acid:** $3NO_{2(g)} + H_2O(l) \longrightarrow 2HNO_{3(aq)} + NO_{(g)}$	**1** **1** **1**
31) a)	**Complete the following equation:** **$PbS + 4O_3 \longrightarrow$ _____ $+ 4O_2$**	
b)	**$5SO_2 + 2MnO_4^- + 2H_2O \longrightarrow 5SO_4^{2-} + 4H^+ +$ _____**	
c)	**$C_{12}H_{22}O_{11} \xrightarrow{conc.\ H_2SO_4}$ _____ $+ 11H_2O$**	
Ans: a)	$PbSO_4$	**1**
b)	$2Mn^{2+}$	**1**
c)	12C	**1**
32. a)	**How is chlorine manufactured by Deacon's process? Give equation.**	
b)	**b) Write the structure of Chlorous acid.**	
Ans: a)	a) By oxidation of hydrogen chloride gas by atmospheric oxygen in the presence of $CuCl_2$ at 723K. $4HCl + O_2 \xrightarrow{CuCl_2} 2Cl_2 + 2H_2O$	**1**
b)	Structure of Chlorous acid is  	**1** **1**

33. a) **b)**	**The transition metals and their compounds are known for their catalytic activity. Give two reasons.** **What is Mischmetall?**	
Ans:a) b)	1) Due to variable (multiple) oxidation states. 2) Large surface area for adsorption of reactant. 3) Formation of intermediate compounds. 4) due to their ability to form complexes (Any two correct answers) **For this question, definition for mischmetall is not available in NCRT textbook. Only its compositions, applications are given. Award one Mark if this question is attempted.**	**1 + 1** **1**
34)	**Explain the preparation of Potassium permanganate from MnO_2 with equations.**	
Ans:	$KMnO_4$ is manufactured from pyrolusite (MnO_2) **Step – I:** Pyrolusite is powdered and fused with KOH in presence of KNO_3 as an oxidizing agent to form potassium manganate. $2MnO_2 + 4KOH + O_2 \longrightarrow 2K_2MnO_4 + 2H_2O$ **Step – II:** The potassium manganate undergoes disproportionation in acidic or neutral medium to give permanganate. $3MnO_4^{2-} + 4H^+ \longrightarrow 2MnO_4^- + MnO_2 + 2H_2O$ The purple solution so obtained is concentrated to get dark purple crystals of $KMnO_4$. Permanganate ion is alsobtained by electrolytic oxidation of manganate ion in alkaline medium.	**1** **1** **1**
35) **a)** **b)**	**Out of the following two coordination entities; cis - $[PtCl_2(en)_2]^{2+}$ and (cis - $[PtCl_2(en)_2]^{2+}$.** **Which is Chiral (optically active)?** **Draw the structures of its enantiomers.**	
Ans: a) b)	cis - $[PtCl_2(en)_2]^{2+}$ is optically active Structure of its enantiomers  	**1** **1 + 1**
36)	**According to Valence Bond Theory [VBT], explain geometry, hybridisation and magnetic property of $[CoF_6]^{-3}$ ion.[Atomic number of Cobalt is 27].**	
Ans:	In this complex, the oxidation state of Co is +3. The electronic configuration of cobalt in +3 oxidation state is $[Ar]3d^6 4s^0$. Orbitals of Co^{3+} ion are represented as  Since F^- ion provides a weak ligand field, one 4*s*, three 4*p* and two outer 4*d*-orbitals hybridised to yield six sp^3d^2 hybrid orbitals pointing towards the six corners of an octahedron.	**1**

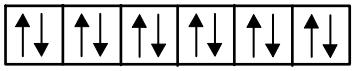




six sp^3d^2 hybrid orbitals

1

These six hybridised orbitals of Co^{3+} overlaps with orbitals of six F^- ligands and six pairs of electrons donated by six F^- to form six coordinate bonds.



1

Six sp^3d^2 hybrid orbitals with six pairs of electrons from ligands.

Thus, the complex has **octahedral geometry.**

This complex is **paramagnetic** because of the presence of unpaired electrons.

	PART - D	
V.	**Answer any three of the following. Each question carries 5 marks.**	**3×5=15**
37) a) **b)**	**Calculate the packing efficiency in Face centred Cubic (FCC) Lattice.** **Potassium metal crystallises in a bcc unit cell with edge length 542 pm. Calculate the density of potassium metal. (Atomic mass of K = 39gmol^{-1}, N_A = 6.022 X 10^{23} atoms mol^{-1}).**	

Ans: a)

Ans: The number of atoms per unit cell in fcc structures is four. Each atom is considered as one sphere.

Let the edge length of the unit cell = a

Radius of the sphere = r

Length of the face diagonal = b

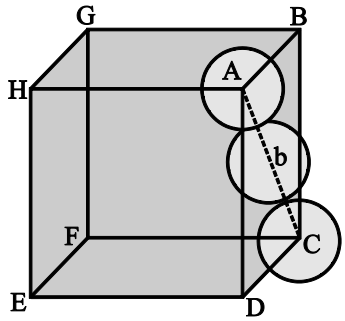


Fig. Unit cell of fcc

In ABC, $AC^2 = BC^2 + AB^2$

$b^2 = a^2 + a^2$

$b = \sqrt{2}\ a$

But $b = 4r$

1

$\therefore \sqrt{2}.a = 4r$

$$a = \frac{4r}{\sqrt{2}} = 2\sqrt{2}\ r$$

Volume of one sphere = $\frac{4}{3}\pi r^3$

Since FCC lattice contains 4 atoms (spheres) per unit cell,

The volume of four spheres in fcc = $4 \times \frac{4}{3}\pi r^3 = \frac{16}{3}\pi r^3$

The total volume of the unit cell = $a^3 = (2\sqrt{2}\ r)^3$

$$\text{Packing efficiency} = \frac{\text{Volume of four spheres in unit cell}}{\text{Total volume of the unit cell}} \times 100$$

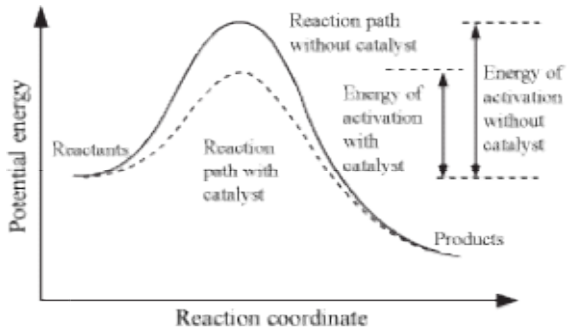
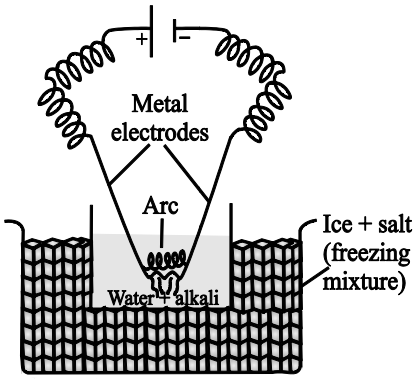
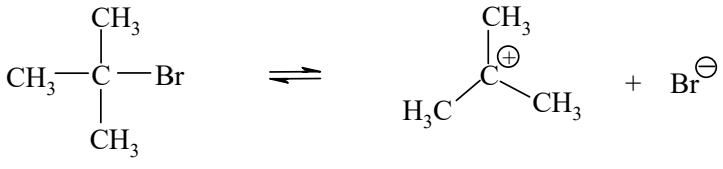
1

$$\text{Packing efficiency} = \frac{\frac{16}{3}\pi r^3}{(2\sqrt{2}\ r)^3} \times 100 = 74\%$$

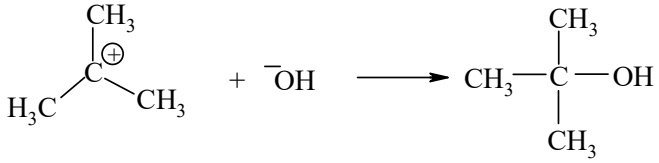
1

b)	$d = \frac{z \times M}{a^3 \times N_A}$ $= \frac{2 \times 39}{(542 \times 10^{-10})^3 \times 6.022 \times 10^{23}} = \frac{78}{95.87} = 0.813 \text{ g cm}^{-3}$ OR $= \frac{2 \times 39 \times 10^{-3}}{(542 \times 10^{-12})^3 \times 6.022 \times 10^{23}} = \frac{78 \times 10^{-3}}{95.87 \times 10^{-6}} = 813 \text{ kg m}^{-3}$	**1** **1**
38) a) **b)**	**450cm^3 of an aqueous solution of a protein contains 1.0g of the protein. The osmotic pressure of such a solution at 310K is found to be 3.1 X 10^{-4} bar. Calculate the molar mass of the protein. (R = 0.083Lbar mol^{-1} K^{-1}).** **State Raoult's law of relative lowering of vapour pressure. Write its mathematical form.**	
Ans: a) b)	$M_2 = \frac{w_2 RT}{\pi V}$ π= 3.1x10^{-4} bar, V = 450cm^3 = 0.450L T = 310K, R = 0.083Lbar K^{-1} mol^{-1} w_2 = 1.0g $M_2 = \frac{1.0 \times 0.083 \times 310}{3.1 \times 10^{-4} \times 0.450}$ $= \frac{25.73 \times 10^4}{1.395}$ $= 1,84,444 \text{ g mol}^{-1}$ **Statement of Raoult's law of Relative lowering of vapour pressure is not available in NCERT textbook**. **This question may be treated as out of the NCERT text book syllabus. Award two marks if this question is attempted.**	**1** **1** **1** **2**
39) a) **b)**	**Calculate the standard Gibb's energy ($\Delta_r G^0$) for the reaction at 298 K:** **$Zn_{(s)} + 2Ag^+_{(aq)} \rightarrow Ag_{(s)} + Zn^{2+}_{(aq)}$** **[Given: $E^o_{(Zn^{2+}/Zn)}$ = - -0.76V & $E^o_{(Ag^+/Ag)}$ = +0.80V; & F = 96,500Cmol^{-1}].** **Write the balanced equations for the reactions taking place at anode and cathode during rusting of iron.**	
Ans: a) b)	• $E^0_{cell} = E^0_{Cathode} - E^0_{Anode} = E^0_{Ag} - E^0_{Zn} = 0.80 - (0.76) = 1.56 \text{ V}$ • $\Delta G^0 = -nFE^0_{Cell} = -2 \times 96500 \times 1.56 = -301080 \text{ J mol}^{-1}$ or –301.080 kJ mol^{-1} Anode: $2Fe_{(s)} \longrightarrow 2Fe^{2+}_{(aq)} + 4e^-$ Cathode: $O_{2(g)} + 4H^+_{(aq)} + 4e^- \longrightarrow 2H_2O_{(l)}$	**1** **1** **1** **1** **1**

40) a) b)	**Derive an integrated rate equation for the rate constant of a first order reaction. Draw a graph of potential energy v/s reaction coordinate showing the effect of catalyst on the rate of a reaction.**	
Ans: a)	Consider a first order reaction, $$R \longrightarrow P$$ A first order reaction is one in which the rate is directly proportional to first power of the reactant concentration. Therefore, according to rate law, $$\text{Rate } \alpha\ [R]^1$$ $$\text{Rate} = k[R]^1 \quad \ldots(1)$$ Where k is rate constant or velocity constant $$\text{But,} \quad \text{Rate} = -\frac{d[R]}{dt}$$ $$\therefore \quad -\frac{d[R]}{dt} = k[R] \quad \ldots(2)$$ Rearrange the equation (2), we get $$\frac{d[R]}{[R]} = -k dt \quad \ldots(3)$$ Integrate equation (3) $$\int \frac{1}{[R]} d[R] = -k \int dt$$ $$\ln[R] = -kt + I \quad \ldots(4)$$ When $t = 0,\ [R] = [R]_o$ where $[R]_o$ is the initial concentration of reactant R. $$\ln[R]_o = -k \times 0 + I$$ where I is called integration constant $$I = \ln[R]_o$$ Substituting the value of I in equation (4) we get, $$\ln[R] = -kt + \ln[R]_o$$ $$kt = \ln [R]_o - \ln[R]$$ $$kt = \ln \frac{[R]_o}{[R]}$$ $$kt = 2.303 \log_{10} \frac{[R]_o}{[R]}$$ $$\boxed{k = \frac{2 \cdot 303}{t} \log_{10} \frac{[R]_o}{[R]}}$$	**1** **1** **1**

Ans: b)		**2**
41. a) **b)**	**Explain Bredig's Arc method for the preparation of metal sols.** **Write two steps involved in the mechanism of enzyme catalysed reaction.**	
Ans: a)	Bredig's arc method involves dispersion as well as condensation & used to prepare metal sols like gold sol, silver sol, platinum sol, etc. Two gold rods are dipped in ice cold water containing little KOH (alkali is added to stabilise gold sol). The vessel is kept in freezing mixture. An electric arc is struck between two gold rods. Heat produced by the spark causes a small amount of gold to vapourize. The vapours of gold condense suddenly to form particles of colloidal size of colloidal gold or gold sol. **(figure 1 one mark)** 	**1** 1
b)	Step 1: Binding of enzyme to substrate to form an activated complex. $E + S \longrightarrow ES^*$ OR $\underset{\text{(key)}}{E} + \underset{\text{(lock)}}{S} \longrightarrow \underset{\text{(complex)}}{ES}$ Lock and key model	**1**
	Step 2: Decomposition of the activated complex to form product. $ES^* \longrightarrow E + P$ OR $\underset{\text{(complex)}}{ES} \longrightarrow \underset{\text{(product)}}{P} + \underset{\text{enzyme}}{E}$	**1**
VI.	**Answer any four of the following. Each question carries 5 marks.**	**4×5=20**
42) a) **b)**	**Explain S_N1 mechanism of conversion of tert-butyl bromide to tert-butyl alcohol.** **Give any two reasons for the less reactivity of aryl halides towards nucleophilic substitution reactions.**	
Ans:a)	S_N1 mechanism involves two steps. It follows first order kinetics. **I Step: (slow step):** Tertiary butyl bromide ionizes slowly to give sp^2 hybridised planar tertiary butyl carbocation and bromide ion.  Tertiary butyl bromide Tertiary butyl carbocation	**1** **1**

II Step: (Fast step) → The nucleophile OH^- from aqueous NaOH attacks planar carbocation on either side to give tertiary butyl alcohol.



Tertiary butyl alcohol

1

The product tertiary butyl alcohol obtained is a racemic mixture.

b) (i) Resonance effect or C – X bond acquires a partial double bond character due to resonance **1**

(ii) Due to sp^2 hybridization of carbon atom in C – X bond **1**

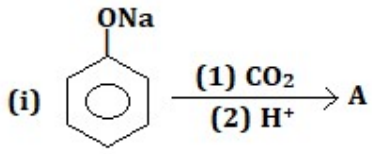
(iii) Instability of phenyl cation

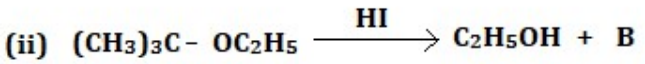
(Any two)

43) a) Write the mechanism of the following reaction:

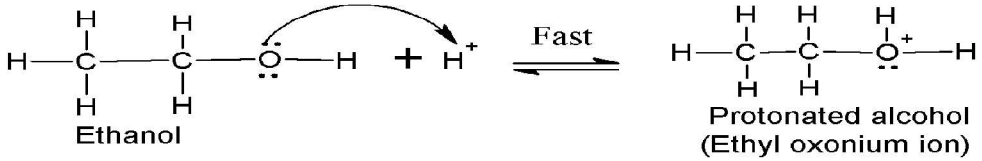
$$C_2H_5OH \xrightarrow[443K]{Conc.H_2SO_4} CH_2{=}CH_2 + H_2O$$

b)

(i) 

(ii) 

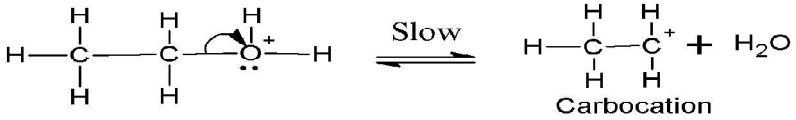
Ans:a) Step1: Formation of protonated alcohol:



Ethanol — Protonated alcohol (Ethyl oxonium ion)

1

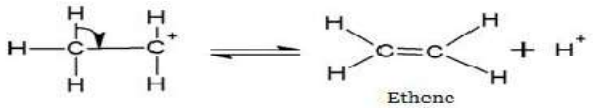
Step2: Formation of carbocation:



Carbocation

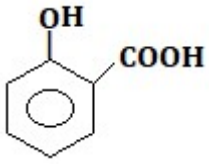
1

Step3: Elimination of proton:



Ethene

1

b) i) A → 

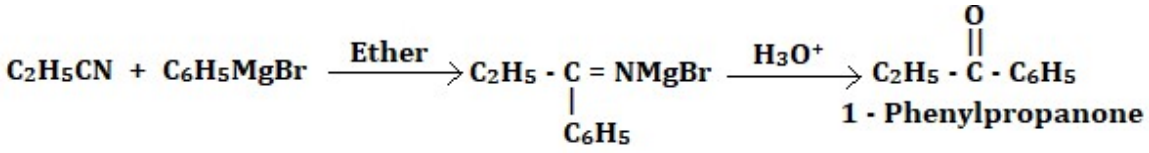
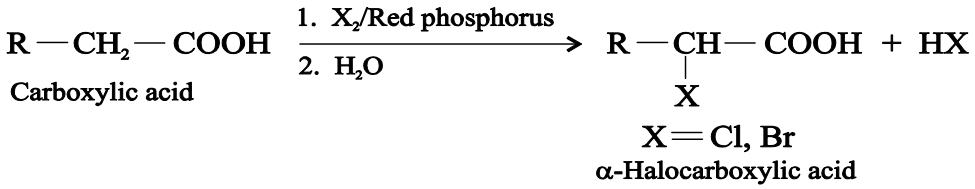
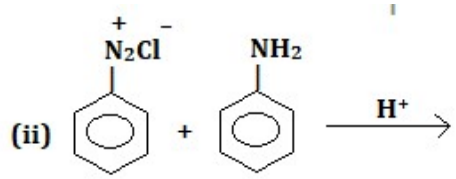
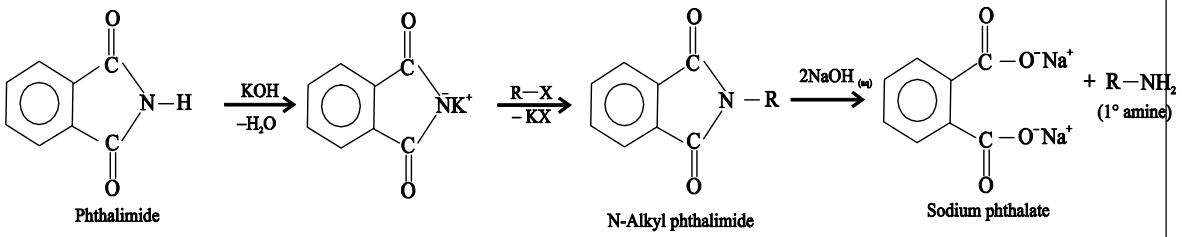
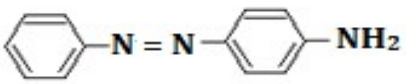
1

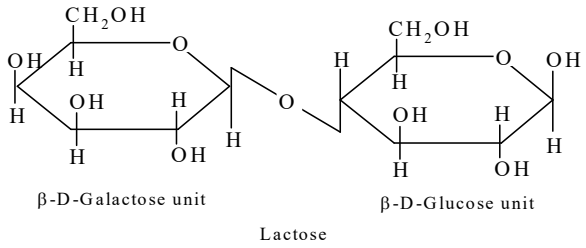
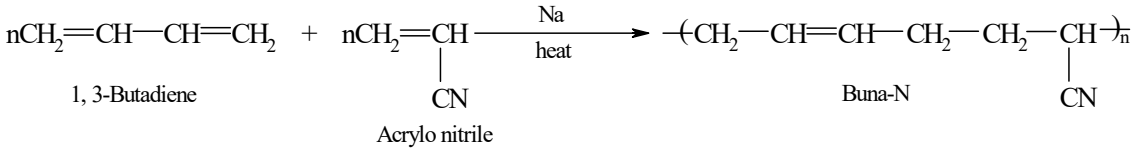
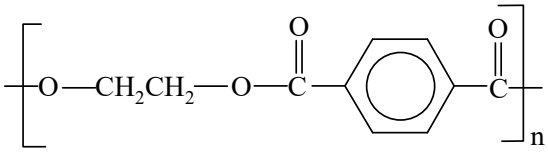
1

OR

o - hydroxybenzoic acid OR Salicylic acid

ii) B → $(CH_3)_3C$-I OR t-butyl iodide OR 2-iodo-2-methylpropane

44) a) **b)** **c)**	**How is ketone prepared from Grignard reagent and nitrile? Explain with an example.** **Explain Hell – Volhard – Zelinsky reaction. Give equation.** **What is the role of dry HCl gas in the addition of alcohols to aldehydes?**	
Ans: a)	Treatment of nitrile with Grignard reagent followed by hydrolysis gives a ketone.  	
b)	Carboxylic acids having an α-hydrogen on treated with chlorine or bromine in the presence of red Phosphorus gives α-halocarboxylic acid.  	**1** **1**
c)	Dry hydrogen chloride protonates the carbonyl oxygen & increase the electrophilicity of the carbonyl carbon.	**1**
45) a) **b)** **i)** **ii)**	**Write the equations of reactions involved in the Gabriel Phthalimide synthesis of a primary amine.** **Complete the following reactions by giving major products** (i) $C_6H_5NH_2 \xrightarrow[273K-278K]{NaNO_2 + 2HCl}$  	
Ans:a)	Phthalimide on treatment with ethanolic potassium hydroxide (KOH) form potassium salt of phthalimide which on heating with alkyl halides followed by alkaline hydrolysis produces primary amine.  	1
b) i) ii)	(i) $C_6H_5N_2^+Cl$ or $C_6H_5N_2Cl$  	**1** **1**

46) a) **b)** **c)**	**Write the Haworth's structure of lactose.** **What is denaturation of proteins? Which level of structure remains intact during denaturation of globular proteins?** **Name the sugar moiety present in DNA.**	
Ans:a)	 β-D-Galactose unit β-D-Glucose unit Lactose	**2**
b)	Loss of biological activity of protein by heating or change in temperature or pH is called denaturation of protein. **OR** Co-agulation of protein is called denaturation of protein. Primary (1^0) structure remains intact.	**1** **1**
c)	Deoxyribose **OR** *β*-D-2-deoxyribose;	**1**
47) a) **b)** **c)**	**How is Buna – N prepared? Give equation.** **Name the monomers of the biodegradable polymer Nylon -2-nylon-6.** **Write the partial structure of Dacron.**	
Ans:a)	Buna – N manufactured by the co-polymerisation of 1, 3-butadiene and acrylonitrile in presence of peroxide or sodium catalyst.  1, 3-Butadiene Acrylo nitrile Buna-N	1 1
b)	Glycine Aminocaproic acid	2
c)		1