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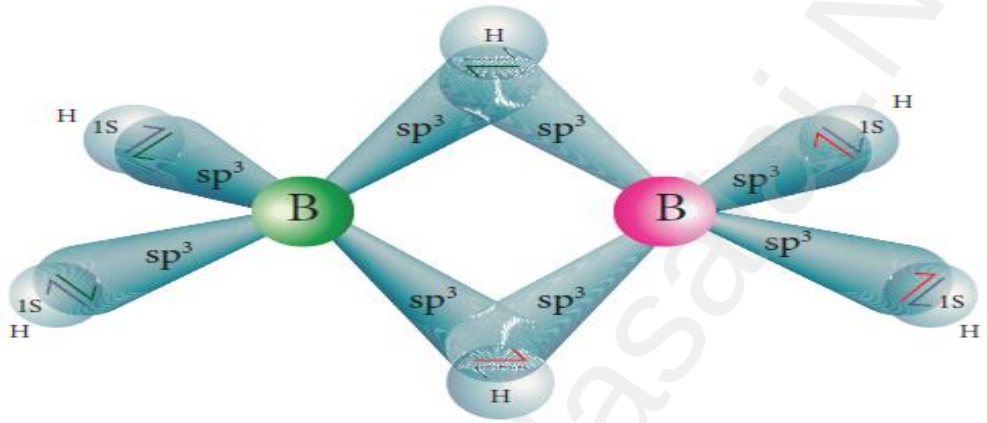
XII – CHEMISTRY (INTERIOR QUESTIONS)

(UNITWISH QUESTIONS)

(UNIT – 1 TO 15)



Structure of diborane.

"SUCCESS IS A JOURNEY, NOT A DESTINATION"

PREPARED

BY

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TWO,THREE & FIVE MARKS QUESTIONS :

UNIT –1

1. Define Metallurgy? (2)
2. What are minerals? (2)
3. What are ores? (2)
4. What are the steps involved in metallurgical process? (2)
5. Define gangue. (3)
6. Define depressing agents. Give example. (4)
7. What is leaching? Explain i) cyanide leaching ii) alkali leaching iii) Ammonia leaching (4,5)
8. Define Roasting. Give example (6, 7)
9. Define calcination. Give example (7)
10. What is smelting?Give example? (8)
11. What is Auto Reduction. (10)
12. Ag_2O and H_gO are unstable at moderate temperature why? (13)
13. What is mond's process. (16)
14. Explain Alumino thermic process. (14)
15. Define liquation (15)
16. Explain the extraction of Au by cyanide leaching? (4)
17. Write a note on Van Arkels process. (17)
18. Explain the froth floatation process with neat diagram. (4)
19. How will you separate magnetic ores from non-magnetic ores? (6)
20. Write a note on thermodynamic principel of metallurgy (10)
21. Write a note on cementation. (5)
22. What is acid leaching? (5)
23. Explain how is metal oxides are reduced by carbon and Hydrogen? Give example. (9)
24. How is zirconium / Titanium are refined by Van – Arkel method. (17)
25. Write the application of i) Al ii) Zn iii) Fe iv) Cu v) Au (18)

UNIT –2

1. Define inert pair effect (30)
2. Why boron compounds are covalent? (32)
3. Give the reaction for action of heat on borax. (34)
4. What is McA fee process? (39)
5. What is producer gas? (43)
6. What is syn-gas? (43)
7. What happen when diborane heated at various temperature? (36)
8. BF_3 – act as a lewis acid. Explain. (38)
9. Define Potash alum. Give its preparation. Give its uses (39)
10. What is burnt alum? (40)
11. What are the conditions for cattenation? (41)
12. Explain the types of silicones (47)
13. Mention the properties of silicones. (48)
14. What are silicates and mention the types of silicates. (48)
15. Explain the anomalous properties of B (32)
16. Give the use of Boron (33)
17. Give the reaction of Boron with following: i) O_2 ii) H_2SO_4 iii) NaOH iv) N_2 v) X_2 (33)
18. How will you prepare boric acid from Borax. (34)
19. Give the reaction of Boric acid with following: (35)
    i) Heat ii) NH_3 iii) C_2H_5OH iv) CaF_2

20. Give the uses of Boric acid (35)
21. Explain the reaction of B_2H_6 (diborane) with the following: i) O_2 ii) CH_3OH iii) $CH{\equiv}CH$ iv) LiH v) NH_3 (36)
22. Give the uses of i) B_2H_6 ii) BF_3 (38)
23. How is $AlCl_3$ prepared by industrictly (39)
24. Give the equation for $AlCl_3$ with the following: (39)
    i) H_2O ii) NH_4OH iii) NaOH
25. Give any three preparation of CO. (43)
26. What is oxo process. (43)
27. Give the equation for preparation of CO_2 in laboratory. (45)
28. How will you prepare $SiCl_4$ by commercial scale? (46)
29. $SiCl_4$ with following give equation.
    i) H_2O ii) C_2H_5OH iii) NH_3 (46)

UNIT –3

1. Preparation of N_2 from NaN_3 and NH_3. (57)
2. Give the reaction of N_2 with the following
    i) Li ii) Ca iii) B iv) H_2 v) O_2 (58)
3. Give the uses of Nitrogen (58)
4. How is ammonia prepared from urea and laboratory? (58)
5. Give the reaction NH_3 with following:
    i) Heat ii) O_2 iii) pbo iv) Cl_2 v) Na vi) M_g (59)
6. How will you ammonia prepared from nitrogen? (58)
7. Why Nitrogen gas is chemically inert? (58)
8. What happen when copper sulpate reacts with ammonia? (60)
9. Explain the structure of Ammonia(60)
10. How did you prepare Nitric acid in commercial method? (61)
11. Give nitric acid is colourless, on standing it become yellow. Justify. (61)
12. Give the equation for oxidizing nature of HNO_3. (61)
13. Explain the reaction involved in HNO_3 with Cu and M_g at different concerntraction. (63)
14. Write the uses of Nitric acid. (63)
15. How will you prepare NO from sodium nitrite? (64)
16. How will you prepare the following compound : i) N_2O ii) N_2O_3 iii) NO_2 iv) N_2O_4 v) N_2O_5 (65)
17. Draw the structure of N_2O_4, N_2O_5, N_2O (66)
18. Give the preparation for the following:
    i) HNO_2 ii) HNO_3 iii) HNO_4 (66)
19. Explain the allotropic forms of phosphorous. (67)
20. How is p –react with the following:
    i) O_2 ii) Cl_2 iii) NaOH iv) HNO_3 v) M_g, Ca (68)
21. Give any two use of phosphorous. (68)
22. Preparation of PH_3. Give any three method. (69)
23. PH_3 – reaction with following:
    i) Electric current ii) O_2 iii) HI iv) Cl v) A_gNO_3 (69)
24. Explain the structure of pH_3.(70)
25. What is Holme's signal? (70)
26. How is ortho phosphoric acid prepared from PCl_5. (71)
27. Give the uses of PCl_3 and PCl_5. (71)
28. Draw the structure of PCl_3, PCl_5, P_2O_3, P_2O_5. (70)
29. Give the structure of the following compounds:
    i) H_3PO_2 ii) H_3PO_3 iii) $H_4P_2O_6$ iv) H_3PO_4 (72)
    v) $H_4P_2O_7$ and also give the preparation. (73)
30. Give any three equation for preparation of O_2. (74)

31. Explain the oxidizing nature of ozone. (75)
32. Give the uses of oxygen. (75)
33. What happen when PCl_3 is treated with cold water? (70)
34. Write a short note on Rhombric sulphur? (75)
35. Give any three method for preparation of SO_2(76)
36. Explain the Reducing nature of SO_2. Give example (79)
37. Explain the bleaching action of SO_2. (77)
38. Give the uses of SO_2. (77)
39. Explain the structure of SO_2(77)
40. Give the preparation of H_2SO_4 by contact process. (77)
41. Explain the dehydrating properties of H_2SO_4(78)
42. Give any three equation for oxidizing nature of H_2SO_4 (79)
43. Give any two uses for sulphuric acid (79)
44. Test for sulphate. (80)
45. Draw the structure for the following: (80, 81)
    a) H_2SO_3 b) H_2SO_4 c) $H_2S_2O_4$ d) $H_2S_2O_7$ e) H_2SO_5 f) $H_2S_2O_7$
    g) H_2SO_5 h) $H_2S_2O_8$ i) $H_2S_2O_6$
46. Give the equation for preparation of Cl_2 by Deacon's process. (83)
47. How is Cl_2 react with the following: Give equation, i) Na ii) H_2 iii) B iv) S v) P_4 vi) As vii) Sb
48. Give the bleaching Action of Cl_2.(85)
49. Preparation of bleaching powder (85)
50. Write any two uses of chlorine (86)
51. Explain the thermal stability of hydrogen halide (88)
52. HF- do not stored in silica why? (88)
53 Explain the reducing property's of HI. (88, 89)
54. What is inter halogen compounds. (89)
55. Write any three properties of inter halogen compounds. (90)
56. Write any four preparation for xenon compounds (92)
57. Explain the oxidizing properties of sodium per xenate. (92)
58. Uses of Noble gases. (93)

UNIT – 4

1. Define transition metals? (101)
2. Where is the position of d – block elements present in the modern periodic table (101)
3. What are series present in d- block elements. (102)
4. Zn, Cd, Hg do not have partially filled d – orbital but belongs to d – block elements. Why? (102)
5. Write down the electronic configuration of Cr and Cu by applying aufbau principle? (102)
6. Write the general electronic configuration of 6^{th} and 7^{th} periods (except La and Ac) in d – block elements? (102)
7. What are the characteristics of transition metals? (103)
8. Write about the metallic behavior of d – block elements? (102)
9. The middle of transition metal series indicates maximum melting point. Give reason? (103)
10. Why the atomic radius of Zn slightly increases? (104)
11. Atomic radii of the 4d elements are higher than the corresponding elements of the 3d series. Give reason? (104)
12. Which is used to predict the thermodynamic stability of the compound? Explain one example? (105)
13. Except scandiune, why all other transition elements exhibit variable oxidation state? (106)
14. What are the possible oxidation state present in V, Cr, Mn and Cu? (106)

15. Write the oxidation states for first and last element in 3d-series? (106)
16. Why Mn^{2+} is more stable than Mn^{4+}? (106)
17. Copper is unique in 3d series. Why? (106)
18. What is meant by standard electrode potential? (107)
19. Which is used to find an oxidizing and reducing power of an element? (107)
20. What happen, when the standard electrode potential (E^0) of a metal is large?(107)
21. Write all the types of materials based on the magnetic properties? (109)
22. Write about the absence and presence of magnetic field in paramagnetic solids? (109)
23. Write about ferromagnetic materials? (109)
24. Calculate the magnetic movement and the number of electrons in Co^{2+} and Fe^{2+}? (110)
25. Many industrial processes use transition metals as catalysts. Give reason. (110)
26. Describe the catalytic hydrogenation of alkene to alkane with equation? (110)
27. Which catalyst is used in the hydroformylation of olefins. Give equation? (111)
28. Which catalysts is used in the preparation of acetic acid from acetaldehydel. Give equation? (111)
29. Write about Zeigler – Natta catalyst with example? (111)
30. Define – Solute and solvent? (111)
31. What are the conditions form a number of alloys in transition metals? (111)
32. Write the properties of interstitial compounds? (111)
33. Why transition metals formed complexes? Give examples.(112)
34. What happens, when the oxidation number of a metal increases in transition metal oxides? (112)
35. Differentiate higher and lower oxides? (112)
36. How will you convert sodium chromate into sodium dichromate?(112)
37. What happens, when $K_2Cr_2O_7$ melts at 671K?
38. Draw and explain the structure of dichromate and chromate ion? (113)
39. Write the equation to confirm the presence of chloride ion in inorganic qualitative analysis? (114)
40. How the action of CrO_2Cl_2 with NaOH solution?(114)
41. Write the uses of $K_2Cr_2O_7$? (114)
42. How will you prepare potassium permanagate from pyrolusite ore?(115)
43. Discuss the electrolytic oxidation in $KMnO_4$?(115)
44. Draw the structure of permanganate ion? (116)
45. Write the equation for the action of heat in $KMnO_4$? (116)
46. Explain the action of $KMnO_4$ with conc.H_2SO_4?(116)
47. Write about Bayer's reagent?(117)
48. Write the uses of $KMnO_4$?(118)
49. Calculate the equivalent weight of $KMnO_4$ in
    (i) acid medium (ii) basic medium (iii) neutral medium(118)
50. What are the inner transition elements?(118)
51. Write the actual electronic configuration of lanthanum?(119)
52. Write the general electronic configuration of 4f series?(120)
53. Why, Gd^{3+} and Lu^{3+} ions have extra stability?(120)
54. Define – Lanthanoid contraction?(121)
55. Write about the cause of lanthanoid contraction? (121)
56. The basic character of Ln^{3+} ions decreases from Ce^{3+} to Lu^{3+}. Give reason?(121)
57. Why the chemical properties of Lanthanoids quite similar?(121)
58. Define – Actinoids? (122)
59. Which ores it is used to find trace amount of plutonium? (122)
60. Write the general valence shell electronic configuration of s5 elements?(122)
61. Write the electronic configuration of Np, Bk and No?(123)
62. Write the common and variable oxidation state of actinoids?(123)

63. Give any two examples to each +5 and +7 oxidation states in actinoids?(123)
64. Write any two oxo cations from actinoids?(124)
65. Write the higher oxidation states of actinoids? (124)

UNIT – 5

1. Write the differences between double salt and co-ordination compound (131)
2. Write the postulation of Werner theory (132)
3. What is co-ordination entity (133)
4. What is central atom/ion (133)
5. Explain the following terms. a) Ligands b) co-ordination sphere c) co-ordination Number (134)
6. Oxidation Define oxidation Number (134)
7. i) $K_4[Fe(CN)_6]$ ii) $[CO(NH_3)_4Cl_2]$ Cl iii) $[Cr(en)_3]$ $\{CrF_6]$ For this compounds. (138)
   Write the following terms.
   a) Ligand b) Central metal ion c) co-ordination number
   d) oxidation state e) geometry f) IUPAC Name
8. Explain briefly for the following: (142, 143)
   i) Linkage isomers ii) Co-ordination isomers
   iii) Ionisation isomers iv) Solvate (or) hydrate isomers
9. Explain briefly for the geometrical isomers for square planar complexes and octahedral compounds. (143, 144, 145)
10. Define optical isomerism. Give one example (146)
11. Give the postulate for VB theory (147)
12. $[Ni(co)_4]$ and $[Ni(CN)_4]^{2-}$ are diamagnetic, Explain using VB theory (149)
13. Compane $[Fe(CN)_6]^{3-}$ and $[Co\ F_6]^{3-}$ using VB theory (150)
14. Write the Limitations of VB theory (152)
15. What is crystal Field theory? (153)
16. Explain crystal field splitting in octahealral complexes. Draw the neet diagram (154)
17. Explain crystal field splitting in tetrahedral complexes. (154)
18. Explain the crystal field splitting energy variable by the nature of ligand with example (155)
19. What is crystal field stabilization energy?(157)
20. $[Fe(H_2O)_6]^{3+}$ is paramagnetic,$[Fe(CN)_6]^{3-}$ is diamagnetic, explain using crystal field theory. (157)
21. Why most of the transition metal complexes are coloured? Explain using crystal field theory. (159)
22. What is metal carbonyls? Give the classification with example. (160)
23. Explain the following: i) Non bridged metal carbonyls (161)
    ii) bridged carbonyls (162)
24. Define stability constant (β) (163)
25. What is instability constant (or) dissociation equilibrium constant? (164)
26. Write the use of metal complexes in biological system. (167)

UNIT – 6

1. Define – Matter (177)
2. What are the three different physical state? (177)
3. Write the general characteristics of solids? (177)
4. What are the classifications of solids? Give one example to each.(177)
5. Define – Heat of fusion? (178)
6. What is isotropy?(178)
7. Mention the classification of crystalline solids? (179, 180)
8. Write the characteristics of ionic solids? (179)
9. When the ionic solid conduct electricity?(179)

10. What are covalent solids? Give two examples.(179)
11. Write about the character of molecular solids?(179)
12. Write the types of molecular solids?(179)
13. Write the uses of Graphite? (179)
14. Discuss about the given terms with examples.
    i) Non – polar molecular solids. (179)
    ii) Polar molecular solids. (180)
    iii) Hydrogen bonded molecular solids (180)
15. Write the characteristics of metallic solids? (180)
16. Define – crystal lattice and unit cell? (180)
17. Define – coordination number? (180)
18. Write a short note on primitive and non-primitive unit cell? (181)
19. Write the names of seven primitive crystal systems? (181)
20. Draw the seven primitive crystal systems and mention their edge length and angles between the edges? (181)
21. Calculate the total no of atoms present in sc unit cell? (183)
22. Calculate the total no of atoms present in Bcc and Fcc unit cell? (183, 184)
23. Mention the coordination number of Sc, Bcc and and Fcc? (183, 184)
24. Draw the unit cell diagram of Sc, Bcc and Fcc? ((183, 184)
25. Write Bragg's equation and explains the terms involved? (184)
26. Write the formula used to calculate the value of cl in unit cell? (184)
27. Write the formula used to calculate density and explains the terms involved? (185)
28. Write about the types of AAA…….. and ABAB…. packing arrangement in crystals? (186, 187)
29. Mention the co-ordination numbers of AAA and ABAB types of packing arrangement? (186, 187)
30. Why ABAB type of arrangement is closest than AAA type? (187)
31. Mention the packing efficiency values in Sc, Bcc and Fcc? (187, 189, 192)
32. Calculate the packing efficiency in SC arrangement? (187)
33. Why, polonium crystallizes in simple cubic pattern in the periodic table? (188)
34. Explain, How many types of voids present in the formation of second layer of fcc? (189)
35. Arrange the increasing order of packing efficiency in given below i) SC ii) bcc iii) Fcc? (187, 189, 192)
36. Write the classification of defects of crystal? (193)
37. Write the classification of point defects? (193)
38. Explain schottky and Frenkel defect? (193, 194)
39. Explain metal excess defects with an example? (194)
40. Write about metal deficiency defect? (195)
41. Discuss about impurity defect? (195)
42. Define – piezoelectric crystals? (195)
43. Write the uses of piezoelectric crystals? (196)

UNIT – 7

1. Define rate (205)
2. Difference between rate and rate constant of a reaction (209)
3. Define Molecularity (210)
4. Give any three difference between order and molecularity (210)
5. What is elementary reaction (210)
6. Derive the integrated rate law for a first order reaction (212)
7. Give any three examples for first order reaction (213)
8. What is pseudo first order reaction(214)
9. Derive the integrated rate law for a zero order reaction(214)

10. Give three example for a zero order reaction (215)
11. Define half life period? Derive the equation for half period (215)
12. Explain briefly the collision theory of bimolecular reaction (217)
13. Write the Arrherius equation and explain its terms (220)
14. Derive Arrhenius equation to effect of temperature on reaction rate. (220)
15. What are the factor affecting the reaction rate (222)
16. Explain the following terms:
    i) Nature of reactant (222)
    ii) Concentration of reactant (222)
17. How is surface area of a reactant to effect the reaction rate. (223)
18. How is reaction rate affected by catalyst (224)
19. What is instantaneous rate(225)
20. Define Activation energy (218)

UNIT – 8

1. What are the general characteristics of acid and base? (2)
2. Explain the arrhenius concept of acid and base? (2)
3. Define acid and base, based on proton theory? (3)
4. Write a limitation of arrhenius concept? (3)
5. Explain proton theory of acid and base?
6. Define acid and base, based on lew is concept? (4)
7. Differentiate Lewis acids and Lewis bases? (5)
8. What is meant by strong acid and weak acid? Give one example to each? (6)
9. Write the ionisation constant(K_a) value for HCl, HCOOH and CH_3COOH? (6)
10. Give two examples for, (7)
    i) strong acids ii) very weak acids
    iii) weak bases iv) strong bases
11. What is meant by auto ionisation of water? (7)
12. $K_w = 1 \times 10^{-14}$ at 25^0C. Justify this statement? (17)
13. Why, increase in temperature, K_w value increases? (18)
14. Define – pH scale? (9)
15. Write about the negative sign in pH scale? (9)
16. Explain the relation between pH and pOH? (9)
17. Mention the pH value for (10)
    i) Stomach acid ii) Tomato iii) water iv) Baking soda v) Bloach
    iv) Drain cleaner
18. Explain Ostwald's dilution law? (12)
19. State – Degree of dissociation? (12)
20. State – Ostwald's dilution Law? (14)
21. What is common ion effect? Explain.(15)
22. Discuss about buffer solution and buffer action? (16)
23. What are the types of buffer with an example? (16)
24. State – buffer capacity? (18)
25. State – buffer index? (18)
26. Derive Henderson – Hasselbalch equation? (18)
27. Define – Neutralization? (21)
28. What is salt hydrolysis? (21)
29. Explain about the hycholysis of salt of strong base and weak acid? (21)
30. Derive the pH of salt solution in terms of K_a and the concentration of the electrolyte? (22)
31. What is solubility product? (25)
32. How is solubility product is used to decide the precipitation of ions? (25)

33. Derive the value of solubility product from molar solubility? (26)

UNIT – 9

1. State – Ohm's law? (34)
2. What is resistivity? Give its Unit. (35)
3. What is conductivity?Give its unit. (35)
4. What is specific conductance? Give its unit. (35)
5. Define Molalr conductance? (36)
6. Define Equivalent conductance. (37)
7. Write the factors affecting electrolytic conductance? (37)
8. Why is AC current used instead of DC in measuring the electrolytic conductance? (38)
9. Discuss Debye – Huckel and onsager equation? (41)
10. What are the values of A and B in Debye – Huckel and Onsager equation? (41)
11. State – Kohhaush's law? (41)
12. Explain calculation of degree of dissociation of weak electrolytes based on kohlraush's law? (42)
13. What are the two types of electrochemical cell? (43)
14. What is emf (or) cell potential? (47)
15. Write about the galvanic cell notation? (46)
16. Write about SHE? (40)
17. Explain about thermodynamics of cell reactions?(50)
18. What is meant by Faraday?How is it calculated?
19. Explain Nernst equation? (51)
20. What is Electrolytic cell? (53)
21. State – Faraday's first law? (54)
22. Define – Electrochemical equivalent? (54)
23. State – Faradays's second law? (55)
24. What are the types of batteries? (56)
25. Explain about the working principle of leclanche cell? (56)
26. Explain mercury button cell? (57)
27. Explain about Lead storage battery? (58)
28. Describe about lithium-ion battery? (58)
29. What is intercalation? (59)
30. What is corrosion? (60)
31. Explain about the electrochemical mechanism of corrosion? (60)
32. Write a note on galvanizing? (61)
33. What are the conditions to form corrosion? (60)
34. What are electrochemical series? (62)

UNIT – 10

1. What is interface? (70)
2. Distinction between chemical and physical adsorption? (71)
3. Write the factors affecting adsorption? (72)
4. Define – adsorption isobar and adsorption isotherms?(73)
5. Discuss the use of adsorption in the softening of hardwater?(75)
6. What is catalysis? (77)
7. What is positive and negative catalysis? (77)
8. Differentiate homogeneous and heterogeneous catalysis?(77)
9. What are the characteristics of catalysts? (78)

10. What are promoters? Give one example? (79)
11. What is catalyst poision? Give example?(79)
12. Differentiate auto and negative catalysis? (79)
13. State – activation energy? (80)
14. Explain intermediate compound formation theory? (80)
15. What are active centres? (82)
16. Write some common examples of enzyme catalysis? (83)
17. What is optimum temperature? (84)
18. What is optimum pH? (84)
19. Discuss about zeolite catalysis? (84)
20. Explain phase transfer catalysis? (85)
21. Write about nano catalysis? (86)
22. Differentiate lyophillic and lyophobic colloids? (87)
23. Explain dispersion methods for the preparation of colloids? (88, 89, 90)
24. What is peptisation? (90)
25. Explain condensation methods for the preparation of colloids? (90)
26. What is coagulation? (91)
27. What is Ultrafiltration? (92)
28. What is Brownian movement? (93)
29. What is Tyndall effect? (93)
30. Write about Helmholtz double layer? (94)
31. What is Eloctropheresis (or) Cataphoresis? Mention its use. (94, 95)
32. What are electro osmosis? (95)
33. What is flocculation value? (96)
34. What is Gold number? (96)
35. Write the types of emulsions? (97)
36. What is Emulsification? (97)
37. What is Deemulsification? Mention various deemulsification techniques? 997)
38. What is inversion of phase? Give example? (98)
39. How to form delta? (99)

UNIT – 11, 12, 13

CONVERT:

1. Ehene	→	Glycol (110)
2. Triglyceride	→	Glycerol (110)
3. Ethanol	→	Ethene (115)
4. Ethanol	→	Ethanal (118)
5. Glycol	→	Dinitroglycol (119)
6. Glycol	→	Oxirane (119)
7. Glycol	→	1,4 – dioxane (120)
8. Aniline	→	phenol (126)
9. Benzene	→	phenol (127)
10. phenol	→	Benzene (127)
11. phenol	→	Anisole(128)
12. phenol	→	picric acid (129)
13. phenol	→	salicyclic acid (130)
14. phenol	→	salicylaldehyde (130)

15. phenol → phenolphthalein (131)
16. Ethyne → Ethanal (149
17. Benzene → Benzaldehyde (152)
18. Toluene → Benzaldehyde(152)
19. Acetaldehyde → Acetaldoxime (157)
20. Acetone → Acetone hydrazone(157)
21. Acetone → Acetone phenyl hydrazone (157)
22. Acetaldehyde → Aldimine (158)
23. Formaldehyde → Urotropine(158)
24. Acetone → pinacol (161)
25. Benzaldehyde → Cinnamaldehyde(163)
26. Benzaldehyde → Benzoin(164)
27. Benzaldehyde → cinnamic acid (165)
28. Benzaldehyde → schiff's base (165)
29. Benzaldehyde → Malachite green dye (165)
30. Ethyl alcohol → Acetic acid (170)
31. Toluene → Benzoic acid (171)
32. Acetic acid → Ethanol (174)
33. Acetic acid → Acetamide (175)
34. Ethyl acetate → Acetamide (185)
35. Acetamide → Aceto nitrile (187)
36. α – Chloro acetic acid→ Nitromethane (200)
37. Acetoneoxime → 2 – Nitropropane (201)
38. Nitro methane → Chloropicrin (203)
39. Nitrobenzene → Azobenzene (203)
40. Nitrobenzene → Aniline (208)
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ALL THE BEST