12TH CHEMISTRY
FIRST READ THIS QUESTIONS(QUARTERLY)

UNIT-1
1. froth flotation process-ipn :4
2. mond process for refining Nickel-ipn : 16
3. zone refining process with-ipn : 16
4. refining of titanium by van-arkel method-ipn : 17
5. principle of electrolytic refining with an example-ipn :15
6. difference between minerals and ores b/b-1
7. limitation of elingham diagram-ipn :13
8. auto-reduction ? give example-ipn :10
   Magnetic process--ipn :6
9. which type of ores can be concentrated by froth flotation method give two example b/b-4
10. What is the role of limestone in the extraction of iron from its oxide Fe_2O_3 b/b-3

UNIT-2
1. Give the uses of silicone-ipn :48
2. What is inert pair effect ? -ipn :30
3. Difference between diamond and graphite-ipn :41
4. Describe the structure of diborane-ipn :37
5. conditions for catenation property ? -ipn :41
6. give the uses of borax-ipn :34
7. How will you identify borate radical ? -ipn :35
8. What are the uses of boric acid ? -ipn :35
   And potash alum -ipn :
9. Write a note on Fisher tropsch synthesis-ipn :44
10. prepare inorganic benzene ? -ipn :37
    & factors responsible for the anomalous behaviour of first element of the p-block ? -ipn :29

UNIT-3
1. Give the uses of helium and argon-ipn :93
2. What are inter halogens compounds ? mention their properties-ipn :89
3. How is bleaching powder prepared ? -ipn :85
4. HF can't be stored in glass bottle-ipn :88
5. Write a short note on Holmes signal-ipn :70
6. what is Aquaregia its use ? -ipn :86
7. Explain the dehydrating property of sulphuric acid with suitable-ipn :78
8. Deacons's process for manufacture of chlorine-ipn :83
9. Write the reason for the anamolous behaviour of nitrogen-ipn :58 (b/b-13)
10. difference between red phosphorus and white Phosphorus -ipn :67
11. explaine the structure of ammonia-ipn :60

UNIT-4
1. Compare the properties of lanthanides and actinides-ipn : 123

2. lanthanoide contraction explain itsconsequences-ipn :121
3. What are interstitial compounds-ipn :111
4. why d block elements exhibit variable oxidation state?- -ipn :106
5. properties of interstitial compounds ? -ipn :111
6. Write a note on zeigler –Natta catalysis . Give its use-ipn :111
7. Write chromyl chloride test-ipn :114
8. preparation of $K_2Cr_2O_7$-ipn :112
9. hume -rotheryrule for formation of alloys?ipn :111
10. Why transition elements form complexs ? -ipn :112

UNIT-6
1. frenkel defect and Schottky defect-ipn :193-194
2. differentiate between crystalline solid and amorphous solid-ipn :178
2. Distinguish between isotropy and anisotropy in solids-ipn :178
4. What are the characteristics of Ionic solids? -ipn :179
5. Define unit cell-ipn :180
6. Sketch Face centred cubic unit cell (FCC) –ipn : 184 and calculatethe number of atoms present crystal And BCC- and SC -(In.p.no : 183)
7. Distinguish between hexagonal close packing and cubic close packing b/b-6
8. Write any three difference between tetrahedral and Octahedral voids(b/b-7)
9. calculate the percentage efficiency of packing in case of body centered cubic Crycrystal -ipn :188
10. Explain f centres with a neat diagram and How are point defectclassified ? -ipn :194

UNIT-7
1. Derive integrated rate law for a first order reaction A →product-ipn :212
2. derive integrated rate law for a zero order reaction A→ product. -ipn :214
3. write two difference between rate and rate constant of a reaction-ipn :209
4. what is an elementary reaction ? difference between order and molecularity of a reaction-ipn :210
5. Write Arrhenius equation and explain the terms involved-ipn :220
6. the rate constant for a first order reaction is 1.54 x 10 -3 s-1 . calculate its half life time b/b-23
7. Give examples for the first order reactions-ipn : 213

8. Give three examples for zero order reaction-ipn :215

9. Define half life period of reaction. -ipn :215

10. Show that in case of first order reaction , the time
    required for 99.9% completion is nearlyten times the
    time required for half completion of the reaction-ipn :217

UNIT-8

1. Derive an expression for ostwald dilution law-ipn :12

2. Derive henderson equation-ipn :18

3. Derive the Relation between P^H and P^{OH}-ipn :9

4. what are Lewis acid and bases give one example for
   each-ipn :4

5. Define common ion effect-ipn :15

6. Define ionic product of water .Give its value at room
   temperature-ipn :7

7. What is buffer solution ? Give an example-and action ipn :16

8. Define solubility product. -ipn :24

9. Define pH-ipn :9

10. limitations of Arrhenius concept ? -ipn :3

UNIT-11

1. Give the coupling reaction of phenol-ipn :131
    schotten baumann reaction-127

2. victor Meyer test-ipn :111

3. Lucas test-ipn :111

4. Convert glycerol to acrolein-ipn :121
    & TNG-121

5. How is ethylene glycol converted into 1,4 dioxane-ipn :120

6. differentiate phenol and alcohol-ipn :131

7. phenolphthalein is prepared ? -ipn :131

8. How are Williamson synthesis of ether ? -ipn :135

9. Write noteson i) Dow's process(IN.no:126)ii)Reimer
    Tiemann Reactio(p.no:130)
    Write the kolbes reaction. -ipn :130

10. give the uses of diethyl ether -ipn :138

UNIT-12

1. mechanism of cannizaro reaction-ipn :163

2. mechanism of aldol condensation reaction-ipn :161

3. test for carboxylic acid group -ipn :177
     & Write stephenen's reaction-ipn :151

4. formic acid reduces tollen's reagent whereas acetic
   acid does not reduce give reason-ipn :177

5. Write Test for aldehyde ? -ipn :166

6. How does ammonia react with the following   compounds(in.p.no : 158 ,158,159)
   i) formaldehyde ii) acetone iii) benzaldehyde

7. how will you convert benzaldehyde into the following compounds?
i) benzoin(in.p.no:164) ii)cinnamic acid -165 iii) malachite green -ipn :165

8. What is urotropine how it is prepared-ipn :158

9. Write clemmenson reduction ? (In.p.no : 160)
    Write Wolfkishner reduction ? (In.p.no : 161)

10. Write the test for esterification reaction? And Mechanism -ipn :173

11. What is formalin what is its use & rosenmund reduction -ipn : 167,151

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