Tsi12C

Tenkasi District
First Revision Examination - 2024

22-01-2024

Standard 12
CHEMISTRY
Part - A

Time: 3.00 Hours Marks: 70

I. Choose the best answer. **15x1=15**

1) Which one of the following is used as acidic flux
a) FeO b) CaO c) SiO_2 d) $FeSiO_3$

2) The elements belongs to Group 17 and 18 are
a) metallords b) metals c) Nonmetals d) Both a & b

3) i) H_2SO_4 - Dibasic acid
ii) H_3PO_3 - tribasic acid
iii) H_3PO_4 - mono basic acid
iv) H_3PO_3 - Mono base acid, Which statements are correct?
a) (i) & (ii) b) (ii) & (iii) c) (iii) & (iv) d) (i) & (iv)

4) Transition elements having + 3 oxidation state is
a) Ni b) Mn c) Cr d) Se

5) Isomerism exhibited by the compound is [pt $(NH_3)_2$ Cl_2]
a) Co-oxtination isomerism b) Linkage isomerism
c) optical isomerism d) Geometrical isomerism

6) Which of the following crystal conduct heat and electricity
a) molecular crystal b) Ionic Crystal
c) Metallic crystal d) all of these

7) 75% of a order reaction completes in 60 mins, then the time require to complete 50% is
a) 20 mints b) 30 mints c) 35 mints d) 75 mints

8) If the solubility product of lead iodide is 3.2×10^{-8} its solubility will be
a) 2×10^{-3} M b) 4×10^{-4} M c) 1.6×10^{-5} M d) 1.8×10^{-5} M

9) Which is not Lewis base?
a) BF_3 b) PF_3 c) Co d) F

10) When $\Delta S < 0$ & $T\Delta S$ gets negative sign then
a) adsorption is exothermic b) absorption is exotheric
c) adsorption is endothermic d) absorption is endothermic

11) IUPAC name of acrolein
a) Prop-2 enal b) prop-1 enal c) prop-2enrl d) prop 1-enol

12) Which of the following carboxylic acid cannot be prepared from grignard Reagent?
a) CH_3CH_2COOH b) CH_3COOH c) HCOOH d) C_6H_5COOH

13) Aniline + BenzoylChloride $\xrightarrow{NaOH}$ $C_6H_5NHOC - C_6H_5$. This reaction is known as
a) Fredel - Craff's reaction b) HVZ reaction
c) Schotten - Bauman reaction d) Cannizero Reaction

14) The Pyrimidine bases present in DNA are,
a) Cytosine and Adenine b) Cytosine and Vinane
c) Cytosine and Thiamine d) Cytosine and Uracil

15) Nylon is an example of
a) poly amide b) polythene
c) polyester d) polysaccharide

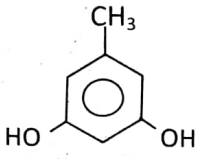
Part - B

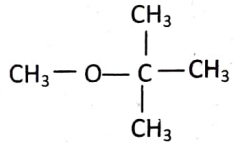
II. Answer any six. Q.No. 24 is compulsory. **6x2=12**

16) Distinguish Ore and Minerals
17) What are inter halogen compounds? Give two examples.
18) What is double salt? Give example.
19) What is co-ordination number? What is the co-ordination number of atoms in a bcc structure
20) Derive the relation between half - life period and First order rate constant.

21) Conductivity decreases, when dilution increases. Why?

22) Write the IUPAC Names

i) 

ii) 

23) How will you prepare $Nylon_6$.

24) Complete the reaction $P_4 + NaOH + H_2O \rightarrow$

Part - C

III. Answer any six. Q.No. 33 is compulsory. **6x3=18**

25) Define the following.
i) Roasting ii) Calcination

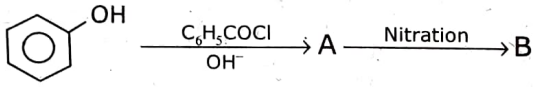
26) Write note on Fisher - Tropsch synthesis.

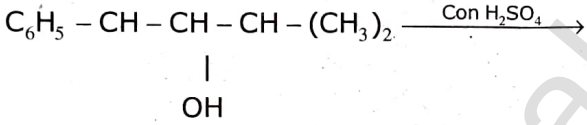
27) $[Ti(H_2O)_6]^{3+}$ is coloured, while $[Se(H_2O)_6]^{3+}$ is colourless. Why?

28) Explain Frenkal defect

29) Derive Ostwald dilution law

30) Complete the following reactions.

i) 

ii) 

31) There are two isomers with the formula CH_3NO_2. How will you distinguish bewteen them?

32) What are drugs? How they are classified?

33) Aluminium Crystalizes in cubic close packed structure. Its metallic radius is 125 pm. Calculate the Edge length of the unit cell.

Part - D

IV. Answer all the questions **5x5=25**

34) a) Explain Zone refining process.

(OR)

b) i) Write any two conditions for catenation.
ii) Why HF cannot be stored in glass bottles?

35) a) Explain Werner's theory.

(OR)

b) i) What is Fardays' First Law.
ii) Derive Henderson Equation

36) a) i) Derive the integrated rate equation for zero order reaction.
ii) Explain the types of coagulation.

(OR)

b) Derive Nernst Equation

37) a) From Phenol how will you obtain
(i) Phenol pthalein (ii) Saliaslic and (iii) Benzene

(OR)

b) i) Write the mechanism of Cannizaro's Reaction
ii) What is trans Esterification.

38) a) Write note on (i) Gabriel Pthalimide syntheses
(ii) What is diazotisation

(OR)

b) i) Write any three dist b/w DNA & RNA
ii) What are antibodies.

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