

PART - II

II. Answer any six questions. Question No. 24 is compulsory.

16. Complete the reaction. $B_2H_6 + CH_3OH \longrightarrow$
17. How will you convert white phosphorus into red phosphorus?
18. Write any two applications of co-ordination complexes.
19. Write the differences between Lewis acids and Lewis bases.
20. State Faraday's second law of electrolysis.
21. How are colloids purified by ultrafiltration?
22. How will you prepare acetaldehyde from ethyne?
23. Give an example for reducing and non-reducing sugars.
24. Aromatic amines are less basic than ammonia - Justify.

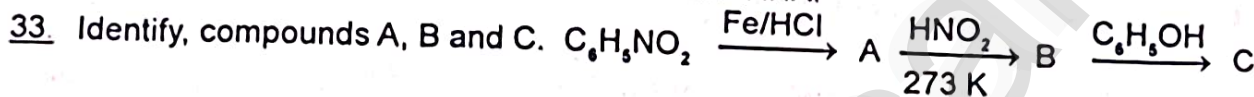
6x2=12

PART - III

III Answer any six questions. Question No. 33 is compulsory.

25. How is potash alum prepared?
26. Explain lanthanoid contraction?
27. What are hydrate isomers? Explain with example.
28. Write Arrhenius equation and explain the terms involved.
29. Explain common ion effect with an example?
30. How are colloids prepared by electro dispersion method?
31. Explain Gattermann-Koch reaction.
32. Write any three differences between DNA and RNA.

6x3=18



PART - IV

IV Answer all the questions.

34. (a) i) What are the various steps involved in the extraction of pure metals from their ores?
ii) Write down the uses of Alum.
(OR)
- (b) i) Write any one test for Sulphate radical.
ii) Why transition elements form co-ordination compounds?
35. (a) Compare Lanthanoids and actinoides.
(OR)
- (b) Write the oxidation state, co-ordination number nature of ligand, magnetic property and electronic configuration in octahedral crystal field for the complex $K_4[Mn(CN)_6]$
36. (a) i) Mention the names of Seven types of unit cell.
ii) Identify the order for the following reactions.
A) Rusting of Iron.
B) Radioactive disintegration of ${}_{92}U^{238}$.
C) $2A + 3B \rightarrow \text{product}$; rate = $K[A]^{1/2} [B]^2$
(OR)
- (b) Derive an expression for the hydrolysis constant and degree of hydrolysis of salt of strong acid and weak base.
37. (a) Explain Mercury button cell.
(OR)
- (b) i) What is auto catalysis?
ii) Mention the various methods of coagulation.
38. (a) (i) What is meant by Trans - esterification?
(ii) Write short notes on Diazotisation reaction.
(OR)
- (b) i) Name the vitamins whose deficiency cause.
A) Rickets B) Scurvy C) Haemorrhage
ii) What is the mode of the action of antacids? Give an example.

5x5=25