DISTRIBUTION OF MARKS

CLASS - +2

SUBJECT - CHEMISTRY

Time : 3 hours **M.M. : 50**

S. No.	Unit	1 mark Ques.	2 mark Ques.	3 mark Ques.	Total Marks
1.	Electro Chemistry	2	2	–	6
2.	Chemical Kinetics	2	2	–	6
3.	Surface Chemistry	2	–	1	5
4.	D and F-block Elements	4	1	–	6
5.	Co-oridnation Compounds	3	1	1	8
6.	Aldehydes, Ketones & Carboxylic Acids	3	–	2	9
7.	Amines	3	2	–	7
8.	Chemistry in Everyday life	1	1	–	3
		20	**9**	**4**	**50**

PAPER TERM - 2

CLASS - +2

SUBJECT - CHEMISTRY

Time : 3 hours **M.M. : 50**

Instructions :

(i) All question are compulsory

(ii) While answering your questions, you must indicate on your answer sheet same question no. as appearing in your question paper.

(iii) Internal choices are given in same questions.

(iv) Question No. 1-20 carry 1 mark each, questions 21–29 is of 2 marks, question 30-33 are of 3 marks.

1. The units of conductivity are :
   (a) ohm^{-1} (b) $ohm^{-1}cm^{-1}$
   (c) $ohm^{-2}cm^2\ equiv^{-1}$ (d) $ohm^{-1}cm^2$
2. One faraday is equal to .....
3. Units of specific reaction rate for 2nd order reaction is .....
4. Rate of reaction depends upon .....
5. Which of the following are positively charged sols?
   (a) $Fe(OH)_3$ (b) Sb_3S_3
   (c) TiO_2 (d) Silver Sol.

6. Which of the following is dia magnetic?

   (a) Fe^{2+} (b) Cr^{2+}

   (c) Zn^{2+} (d) Cu^{2+}

7. Write the general electronic configuration of Lanthanoids?

8. The IUPAC name of $K_4[Ni(CN)_4]$ is .....

9. $C_6H_SNH_2 + CHCl_3$® ..... 10. N_2Cl_2 + H_2O

   $\xrightarrow{\Delta}$ .....

11. Define canthanoid contraction?

12. Medicines used in treatment of allergy are called .....

13. HCOOH reacts with $ConCH_2SO_4$ to produce.

   (a) CO (b) CO_2

   (c) NO (d) NO_2

14. According to freundlich adsorbtion isotherm, which of the following is correct?

   (a) X/m a p^1 (b) X/m a $p^{1/6}$

   (c) X/m a p^0 (d) all of the above

15. Which element belongs to d-block elements?

   (a) Na (b) Ca

   (c) Cu (d) Ar

16. The magnetic moment of $[Ni(CO)_4]$ is

   (a) 0 (b) 2

   (c) 1 (d) 3

17. NO_2^+ is called .....

18. Freshly prepared ammonical silver nitrate solution is known as .....

19. IUPAC name of oxalic acid is .....

20. Which complex has square planar structure?

   (a) $[Ni(CO)_4]$ (b) $[NiCl_4]^{2-}$

   (c) $[Ni(H_2O)_6]^{2+}$ (d) $[Cu(NH_3)_4]^{2+}$

21. What is Nerst equation? Write mathematical relation?

22. Explain standard hydrogen electrode with diagram?

23. (a) Why transition elements formed coloured ions?

   (b) Define transition elements?

   Or

   Which of two is paramagnetic V (iv) or V(V) and Why?

24. (a) What is meant by chelate effect?

   (b) Define optical isomerism? Give one example.

Or

Explain the geometry and magnetic behaviour of $[Ni(CO)_4]$

25. (a) What is order of reaction? Explain.

(b) What is rate law?

26. First order of reaction has specific rate of $10^{-3}s^{-1}$. How much time will it take for 10g of reactant to reduce to 5g?

27. (a) Write IUPAC name of

$CH_3CH_2NH\ CH_3$

(b) Explain Mendius reaction?

Or

(a) Describe Gattermann reaction?

(b) Complete equations :-

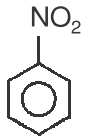
(i) $R-\overset{\overset{O}{\|}}{C}-NH_2 \xrightarrow[H_2O]{LiAlH_4}$ .....

(ii) $C_6H_5NH_2 + Br_2 \circledR$ .....

28. (a) What is tincture of iodine? What is its uses?

(b) What are antacids? Give examples.

29. (a) Why ethylamine is more basic than ammonia?

(b) 

.....

Or

(a) Write short note on Sandmeyer's reaction?

(b) Why do amines behave as nucleophiles?

30. (a) Explain geometry and magnetic behaviour of $[Ni(CN)_4]^{2-}$ on basis of VBT?

(b) $[Ti(H_2O)_6]^{3+}$ is coloured while $[Sc(H_2O)_6]^{3+}$ is colourless. Explain?

31. (a) Write four differences between absorbtion and adsorption?

(b) Name the zeolite catalyst which convert alcohol to gasolien (petrol)?

32. (a) Discuss cross aldol condensation?

(b) Why do aldehydes and ketones under goes nucleophilic addition reaction? Give one example.

33. (a) What is tollen's reagent?

(b) Why formic acid is stronger than acetic acid?

(c) Discuss Hell-volhard zelinsky reaction?

Or

(a) What is formalin?

(b) Write short note on aldol condensation?

(c) What is catalytic dehydrogenation of alcohols?