P.N.DAS COLLEGE

DEPT OF CHEMISTRY

ACADEMIC CALENDAR (2026-27)

Semester Details	Topic coverage	Practical	NO Of Lectures Theory + Practical	Name of the teacher
SEM-I (UNDER-NEP2020) CEMCOR101T CREDITS: Theory-03, practical-02 **AUG-FEB**	Atomic structure, periodicity, acid-base, organic chemistry kinetic theory of gases, liquid state	1.Preparation of standard solution 2.Determination of surface tension and viscosity 3.Determination of single solid and liquid	45+60	Partha Pratim Bhattacharya
SEM-III (UNDER NEP MODE) CEMCOR303T	Radioactivity, Bonding, Alcohol and Ether, Carbonyl Compounds, Chemical Kinetics	Estimation of aniline, estimation of oxalate-oxalic acid	45+60	Partha Pratim Bhattacharya

CREDITS: Theory-03, practical-02 **SEP-FEB**		mixture by $KMnO_4$, determination of heat of solution by strong acid and strong base, determination of heat of solution of week acid and strong base		

SEM-V (UNDER NEP MODE) CEMCOR505T CREDITS: Theory-03, Practicals-02 **SEP-FEB**	Coordination Chemistry Hetero cyclic compounds Electrochemistry Conductance	1. Estimation of Fe(ii) and Fe(iii) by $K_2Cr_2O_7$ solution 2. Estimation of Fe(iii) by $KMnO_4$ solution 3. Conductometric titration(strong acid vs strong base and weak acid vs strong base) 4. pH metric titration of acetic acid and NaOH	60+60	Partha Pratim Bhattacharya .

SEM-II (UNDER NEP) CEMCOR202T CREDITS: Theory- Practical- FEB-JUN	Chemical bonding & molecular structure, stereochemistry, chemical energetics, equilibrium, .	1.Estimation of Fe(ii) in Mohr's salt 2.Estimation of Cu(II) By iodometrically . 3.Detection of special elements(N,Cl) & COOH, -OH, $ArNH_2$, $-ArNO_2$. 4.Determination of solubility product of KHTa	45+60	Partha Pratim Bhattacharya .
SEM-IV (UNDER NEP MODE) CEMCOR404T CREDITS: Theory-03 Practical-02	p-block elements, amines, nitro compounds, carboxylic acid, nitrile and isonitrile, ionic equilibrium	Estimation of vitamin C, preparation of acetanilide, hardness of water by EDTA, solubility product of KHTS, chromatographic separation of Ni and Co ions	45+60	Partha Pratim Bhattacharya

FEB-JUN.				
SEM-VI (UNDER NEP MODE) **CEMCOR606T** **CREDITS: Theory-03, Practical-02**	Bioinorganic Chemistry Bio molecules (amino acid, peptide etc) Polymer Chemistry	1. Preparation of nylon 6,6 2. Preparation of Urea, Formaldehyde, Resin 3. Qualitative analysis of inorganic samples using dry test, wet test and special test by HCl, HNO3 and NaOH extracts	60+60	Partha Pratim Bhattacharya .