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Every Good Work

SACRED HEART COLLEGE (AUTONOMOUS)

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A Don Bosco Institution of Higher Education, Founded in 1951 * Affiliated to Thiruvalluvar University, Vellore * Autonomous since 1987

Accredited by NAAC (4th Cycle – under RAF) with CGPA of 3.31 / 4 at 'A+' Grade

Name of the Programme: M Sc. Chemistry

S No	Title of the Paper	Course Code	Course Objectives	Course Outcomes	Relevance
1	INORGANIC CHEMISTRY – III	CH919	<ul style="list-style-type: none">To study about the basic theory of Inorganic spectroscopy.To illustrate the UV, IR and Raman spectral properties of some inorganic compounds and complexes.To study and illustrate the different types of magnetic behaviour in inorganic materials.To learn the basic concepts of superconductivity behaviour in the materialsTo apply the NMR, NQR, ESR and Mossbauer techniques in to simple inorganic systems.To learn the instrumentation of advance inorganic	<ul style="list-style-type: none">Students can recognize and interpret the spectroscopic techniques in terms of interaction of electromagnetic radiation with moleculesStudents can infer about the magnetic properties and superconductivity of materials and can able to calculate the magnetic susceptibility of the materials.Students can describe the principles and to interpret the instrumentation of various spectroscopic techniques.Students can illustrate the principle involved in ESR, NQR and Mossbauer Spectroscopy and distinguish chemical species using these spectroscopyStudents can apply the principles of spectroscopy to predict the structure of compounds and analyse the various spectra of complexesStudents can able to propose and	local, regional ,national and global developmental needs

			spectroscopy techniques.	formulate the structure of a new compound based on the spectroscopic data	
2	PHYSICAL CHEMISTRY PRACTICAL- II	PCH1015	<ul style="list-style-type: none"> To understand the principles that govern the basic electrochemical experiments To learn the physical methods used in determination of parameters such as pH, conductance and EMF etc. 	<ul style="list-style-type: none"> Learn and apply the principles of conductometry and potentiometry effectively for various titrations Explain the conductometric titration of strong acid, weak acid and mixture of acids with strong Base. Determine the equivalent conductance of strong electrolytes at infinite dilution and dissociation constant of weak electrolyte Calculate the pH of a buffer solution using emf measurements Prepare a salt bridge for potentiometric experiments. Verify the various laws like Ostwald's dilution law and Kohlrausch's law conductometrically and design working electrodes 	local, regional ,national and global developmental needs