SIR C R REDDY COLLEGE FOR WOMEN, ELURU

Affiliated to Adikavi Nannaya University, Rajamahendravaram

PSO's

(w.e.f., 2020-21 0dd sems)

DEPARTMENT OF CHEMISTRY

SIR C R REDDY COLLEGE FOR WOMEN, ELURU

Programme specific outcomes :

PSO-1 : Chemistry of p – block elements

To gain knowledge about the diborane , borazine, silicones, phosphonitrilic halides, oxides and oxyacids of sulphur , pseudohalogens and interhalogen compounds.

PSO-2 : Chemistry of d – block elements and f-blockelements

To gain knowledge about the characteristic properties of d-blockelements. And to gain knowledge about Lanthanides and Actinides.

PSO-3: Theories of bonding in metals

To gain knowledge about Theories of Metals like Free Electron theory, VBT, MOT.

PSO-4 : Solid State Chemistry

To gain Knowledge about the Symmetry in Crystals and Crystaldefects.

PSO-5 : Gaseous state and Liquid state

To gain Knowledge about Vander Waal's equation of state, Andrews isotherms of Carbon dioxide, Critical Phenomena, Law of Corresponding states , Joule-Thomson effect and Classificationof crystals with applications.

PSO-6 : Solutions, Ionic equilibrium and Dilute solutions :

Togain knowledge about Ideal solutions , Non ideal solutions, CST,Nernst distribution law, Ionic product and common ion effect.

And also gain knowledge about colligative properties andabnormal colligative properties.

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PSO-7: Halogen Compounds

To gain knowledge about SN^1 and SN^2reactions.

PSO-8: Hydroxy Compounds

To gain knowledge about preparation and properties of alcohols and phenols.

PSO-9: Carbonyl Compounds

To gain knowledge about preparation and properties of aldehydes and ketones.

PSO-10: Carboxylic acids and its derivatives

To gain knowledge about acid derivatives

PSO-11: Active Methylene Compounds

To gain knowledge about synthesis and reactivity of acetoacetic ester

and malonic ester.

PSO-12 :Electronic Spectroscopy:

To gain knowledge about energy levels of molecular orbitals and types of electronic transitions and concepts of chromophores and auxochromes

PSO-13 : IR Spectroscopy

To gain knowledge about Modes of vibrations in di atomic and poly atomic molecules and characteristics of absorption bands of different functional groups.

PSO-14 : Proton Magnetic resonance spectroscopy:

To gain knowledge about Principles of NMR, chemical shift, Spin-spin coupling and Applications of NMR.

PSO-15 : WATER ANALYSIS:

To gain knowledge about water quality and criteria for finding of water quality-methods

PSO-16: SEPARATION TECHNIQUES :

To gain knowledge about the different separation techniques of solvent extraction

PSO-17:CHROMATOGRAPHIC TECHNIQUES:

To gain knowledge about separation techniques of paper, column and Thin-layer chromatography, And HPLC. Applications of these techniques.

PSO-18 :SPECTROPHOTOMETRY

To gain knowledge about Beers Lamberts Law ,Transmittance, Absorbance, single and Double Beam spectrophotometer and applications of beers lamberts law.

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PSO's

(w.e.f., 2020-21 Even sems)

DEPARTMENT OF CHEMISTRY

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Programme specific outcomes :

Recapitulation of Basics of Organic chemistry:

PSO-1 :Carbon-Carbon sigma bonds(Alkanes &Cyclo alkanes):

To gain knowledge about the preparation and properties of alkanes and cyclo alkanes

PSO-2 :Carbon-Carbon Pi bonds(Alkenes & Alkynes):

To gain knowledge about the preparation and properties of alkenes and alkynes

PSO-3 :Benzene and its reactivity :

To gain knowledge about concept of aromaticity & reactions

PSO-4 :Surface chemistry and chemical bonding:

To gain knowledge about colloids, adsorption, Valenace bond theory , Hybridization, MOtheory, HSAB theory.

PSO-5 :Stereo chemistry of carbon compounds:

To gain knowledge about molecular representation ,optical isomerism, Chiral moleculesD,L,R,S and E,Z-Configuration with examples.

PSO -6: Co-ordination Chemistry

To gain knowledge about theories of complex compounds.

PSO-7: Stability of Metal Complexes

To gain knowledge about stability of complexes

PSO-8: Reactivity of Metal Complexes

To gain knowledge about SN^1 and SN^2 reactions of metal complexes.

PSO-9: Bio-inorganic Chemistry

To gain knowledge about biological significance of some elements

PSO-10 : Phase rule:

To gain knowledge about one component system, two component system, freezingmixtures

PSO-11 : Electrochemistry-I

To gain knowledge about Kohlrausch Law, Arrhenius theory, Ostwalds dilution law, Debye-Huckel-on sagars equation, Definition of Transport number and Determination of Hittorfs method.

To gain knowledge about ,Nernest equation, SHE, Calomel electrode, Applications ofEMF Measurements.

PSO-12: Chemical Kinetics

To gain knowledge about rate of the reaction, zero, first, second order reactions.

PSO-13: Carbohydrates To gain knowledge about preparation,structure, conversions of Glucose and Fructose.

PSO-14: Amino acids and Proteins

To gain knowledge about preparation and properties of Aminoacids.

PSO -15: Nitro Hydro Carbons

To gain knowledge about preparation and properties of Nitro compounds.

PSO -16: Nitrogen Compounds

To gain knowledge about preparation and properties of amines.

PSO-17: Heterocyclic Compounds

To gain knowledge about preparation and properties of Heterocyclic Compounds.

PSO-18: Photochemistry

To gain knowledge about the photochemical laws.

PSO-19: Thermodynamics

To gain knowledge about Thermodynamic properties