Course Outcome (Theory & Practicals)

Course Title	BCT 101 –Theory	
Co.Nos	**Course Outcome**	**PSO**
CO1	From this unit students will understand the Scope of biochemistry, Origin of life, SI units, Molarity, Normality and oxidation numbers.	PSO2
CO2	students will get the knowledge of the structure of atom, quantum numbers, shapes of orbitals, covalent and noncovalent bonds	PSO3
CO3	This concepts will help students to understand what are acids, bases , buffers, colligative properties and pH.	PSO1
CO4	It helps to understand electrolysis, electrochemical cells , oxidation reduction reactions and laws of thermodynamics	PSO4

Course Title	BCP 101 –Practical	
Co.Nos	**Course Outcome**	**PSO**
CO1	Upon completion of the course, the student shall be able to understand Calibration of glass wares - pipettes, burettes and volumetric flasks (demonstration)	PSO2
CO2	Upon completion of the course, the student shall be able to understand Preparation of standard sodium oxalate and estimation of potassium permanganate	PSO3

CO3	Upon completion of the course, the student shall be able to understand Preparation of standard potassium bipthalate and estimation of alkali	PSO1
CO4	Upon completion of the course, the student shall be able to understand Estimation of chloride by Mohr's method	PSO4

Course Title	**BCT 201 –Theory**	
Co.Nos	**Course Outcome**	**PSO**
CO1	From this unit students will understand the rate of reaction, order of reaction, numerical problems, colloids, emulsions and biomolecules.	PSO2
CO2	Students will get the knowledge of the IUPAC Nomenclature, stereochemistry, fisch'r's and newmann projections formulae	PSO3
CO3	This concepts will help students to understand organo 1etallic compounds and their preparations and organo borans, organolithium and other important metals study. Perfurins and metal clusters.	PSO1
CO4	It helps to understand the study of coordination compounds, free radicals, endergonic and exergonic reactionsand their importance in biological system.	PSO4

Course Title	**BCP 201 –Practical**

Co.Nos	Course Outcome	PSO
CO1	Upon completion of the course, the student shall be able to understand Determination of density and viscosity of the given organic liquid using Ostwald's viscometer	PSO2
CO2	Upon completion of the course, the student shall be able to understand Determination of composition of a binary liquid mixture by viscosity method	PSO3
CO3	Upon completion of the course, the student shall be able to understand . Adsorption of oxalic acid on activated charcoal.	PSO1
CO4	Upon completion of the course, the student shall be able to understand Effect of surfactants on surface tension of water.	PSO4

Course Title	BCT 301 –Theory	
Co.Nos	**Course Outcome**	**PSO**
CO1	On completion of the unit students are able to understand, the Role of metal ions in biological systems. Role of iron in Myoglobin,Haemoglobin and cytochromes. Role of Copper in Hemocyanin, Magnesium in chlorophyll.What is the role of Cobalt in vitamin B-12 and Molybdenum in nitrogenase and Metaloenzymes	PSO2
CO2	On completion of the unit students are able to understand the Biochemical toxicologytoxicity and	PSO3

	detoxification. Detail study about Water pollution and Treatment of sewage and Hazardess effect of Pesticides hazards	
CO3	On completion of the unit students are able to understand the Classification and preparation of hydroxy acids. Properties and structure of Dicarboxylic acids. properties and reactions of pyruvic acid ketoglutaric acid and oxaloacetic acid.	PSO1
CO4	On completion of the unit students are able to understand the Classification and distinguishing reactions of 1°, 2° and 3° amines and there biological importance	PSO4

Course Title	**BCP 301 - Practical**	
Co.Nos	**Course Outcome**	**PSO**
CO1	Upon completion of the course, the student shall be able to understand Determination of BOD	PSO2
CO2	Upon completion of the course, the student shall be able to understand Determination of COD	PSO3
CO3	Upon completion of the course, the student shall be able to understand Separation of compounds by TLC	PSO1
CO4	Upon completion of the course, the student shall be able to understand . Determination of λ max	PSO4

Course Title	BCT 401 - Theory	
Co.Nos	**Course Outcome**	**PSO**
CO1	On completion of the unit students are able to understand the classification and role of tissues, blood and body fluids, anatomy of respiratory tract and acid base balances by lungs and kidney.	PSO2
CO2	On completion of the unit students are able to understand the outline, composition and function of digestive system, excretory system, and study of endocrine glands.	PSO3
CO3	On completion of the unit students are able to understand the Cardiovascular system, nervous system and muscular system.	PSO1
CO4	On completion of the unit students are able to understand the importance of nutrition and energy content of food, macronutrients and micronutrients.	PSO4

Course Title	BCP 401 - Practical	
Co.Nos	**Course Outcome**	**PSO**
CO1	Upon completion of the course, the student shall be able to understand Paper chromatography of amino acid by circular method	PSO2

CO2	Upon completion of the course, the student shall be able to understand. Preparation of m- dinitrobenzene from nitrobenzene	PSO3
CO3	Upon completion of the course, the student shall be able to understand . Determination of titrable acidity of urine	PSO1
CO4	Upon completion of the course, the student shall be able to understand Estimation of haemoglobin by Wong's method	PSO4

Course Title	**BCT 501 - Theory**	
Co.Nos	**Course Outcome**	**PSO**
CO1	From this module students will able to understand about the carbohydrates structure, classification and their importance and metabolic pathways of carbohydrates.	PSO2
CO2	This module will help to students to understand the lipid structure and classification biological importance and their biosynthesis and catabolism of lipids. Different types of lipids and importance of biological membranes	PSO3
CO3	This module explains the structure and function of proteins, synthesis of proteins and their properties and importance of proteins	PSO1
CO4	This module helps to students to understand about the thermodynamics and bioenergetics and biological oxidation process and different types of coenzymes and their function.	PSO4

Course Title	BCP 501 - Practical	
Co.Nos	**Course Outcome**	**PSO**
CO1	Upon completion of the course, the student shall be able to understand Qualitative analysis of carbohydrates	PSO2
CO2	Upon completion of the course, the student shall be able to understand Qualitative analysis of amino acids and proteins.	PSO3
CO3	Upon completion of the course, the student shall be able to understand Qualitative analysis of lipids	PSO1
CO4	Upon completion of the course, the student shall be able to understand Estimation of Calcium from milk	PSO4

Course Title	BCT 502 - Theory	
Co.Nos	**Course Outcome**	**PSO**
CO1	In this module students will understand about the enzymes- structure, classification, nomenclature	PSO2
CO2	From this module students will understand about nucleic acids composition function and structure and central dogma of molecular biology and enzymes involved in replication	PSO3

CO3	This module explains about mutation- their types and causes of mutation, mutagens and DNA repair mechanisms	PSO1
CO4	Students will understand about transcription – initiation, elongation, and terminatin ad enzymes involved in transcription and inhibitors.	PSO4

Course Title	**BCP 502 - Practical**	
Co.Nos	**Course Outcome**	**PSO**
CO1	Upon completion of the course, the student shall be able to understand Determination of optimum temperature for α/β amylase	PSO2
CO2	Upon completion of the course, the student shall be able to understand Determination of optimum temperature for Urease	PSO3
CO3	Upon completion of the course, the student shall be able to understand Determination of optimum pH Urease	PSO1
CO4	Upon completion of the course, the student shall be able to understand . Estimation of DNA by Diphenylamine method	PSO4

Course Title	**BCT 601 - Theory**

Co.Nos	Course Outcome	PSO
CO1	From this module students will able to understand about the carbohydrates metabolism both anabolism and catabolism of carbohydrates, glycolysis, TCA cycle, gluconeogenesis and their regulation	PSO2
CO2	This module explains the structure and function of aminoacids, synthesis of aminoacids and importanceand PKU and AKU.	PSO3
CO3	This module helps to students to understand about the nucleic acid metabolism and conversion of nucleotides and orotic acid.	PSO1
CO4	This module explains about the photosynthesis, pigments involved and light and dark reactions and bacterial photosynthesis.	PSO4

Course Title	BCP 601 - Practical	
Co.Nos	**Course Outcome**	**PSO**
CO1	Upon completion of the course, the student shall be able to understand . Estimation of protein by FC method	PSO2
CO2	Upon completion of the course, the student shall be able to understand Estimation of serum cholesterol by Zak's method	PSO3
CO3	Upon completion of the course, the student shall be able to understand . Extraction of DNA from onions	PSO1

CO4	Upon completion of the course, the student shall be able to understand Conductometric titration of amino acid against NaOH.	PSO4

Course Title	**BCT 602 - Theory**	
Co.Nos	**Course Outcome**	**PSO**
CO1	Students will get hands on experience of Industrial Microbiology	PSO2
CO2	This module will help to students to understand the Molecular and Immunological techniques	PSO3
CO3	This module helps to students to understand about the Recombinat DNA technology.	PSO1
CO4	This module explains about the methods of producing recombinant DNA.	PSO4

Course Title	**BCP 602 - Practical**	
Co.Nos	**Course Outcome**	**PSO**
CO1	Upon completion of the course, the student shall be able to understand Gram staining and endospore staining.	PSO2

CO2	Upon completion of the course, the student shall be able to understand Isolation of microorganisms from fermented foods (Demonstration)	PSO3
CO3	Upon completion of the course, the student shall be able to understand Alcoholic fermentation of fruit juice. (Demonstration)	PSO1
CO4	Upon completion of the course, the student shall be able to understand Immunoelectrophoresis of serum or any biological sample.	PSO4