Shri Swami Vivekanand Shikshan Sanstha's
VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
Department of Biotechnology Optional
Academic year 2022-23 B.Sc.II Biotechnology Optional

COS for Semester III And IV

Semester	Course outcomes
Semester III	
Paper V	DSC-1009C Enzyme technology
	CO1: Enzyme Technology deals with the study of the detailed structure & and function of Enzymes, understand use of biosensors in daily life. CO2: The course will give the opportunity to understand the following concepts; IUB classification Steady-state kinetics CO3: Students are able to understand the effect of various factor on enzyme activity. CO4: Students are gaining knowledge regarding various methods in industries used for enzyme and cell immobilization.
Paper VI	DSC-1009C Molecular biology
	CO1: Molecular Biology gives knowledge about the structure and function of the macromolecules, essential to life. Molecular Biology gives detailed knowledge of biological and/or medicinal processes through the investigation of the underlying molecular mechanisms. CO2: Students will gain an understanding of chemical and molecular processes that occur in and between cells. Students understanding will become such that they will able to describe and explain processes and their meaning for the characteristics of living organisms. CO3: Students will gain insight into the most significant molecular and cell-based methods used today to expand our understanding of biology. CO4: After completion of this course students will understand following techniques; a) Gel Electrophoresis b) Blotting Techniques c) Polymerase Chain Reaction d) Genetic Engineering
Semester IV	
Paper VIII	DSC-1009DImmunology
	CO1: The immune system governs defense against pathogens and is of importance for the development of autoimmune diseases, allergy and cancer. CO2: The course discusses basic immunology including cellular and molecular processes that represent the human immune system. CO3: This subject offers a detailed study of the following concepts; a) Immunological processes at a cellular and molecular level b) Defense mechanism (Physico-chemical barriers) c) Innate and acquired Immunity Hypersensitivity CO4: Students can understand serological tests in pathological laboratories
Paper VIII	DSC-1009D rDNA technology
	CO1:In the past century, recombinant DNA technology was just an imagination that desirable characteristics can be improved in living bodies by controlling the expressions of target genes. However, in recent eras, this field has demonstrated unique impacts in bringing advancement in human life CO2: By this technology, crucial proteins required for health problems and dietary purposes can be produced safely, sufficiently CO3:After completion of this course students will understand the following Concepts; a) Restriction Digestion b) Ligation c) Plasmid Construction d) Gene Transfer Methods e) Recombinant Insulin f) Recombinant Vaccines CO4: after completion of the course ,students are eligible to understand working of recombinant technology-based industries
SEC	Introduction to molecular diagnostic
	Students will be able to able to gain knowledge Co1: enzyme kinetics CO2: Asquint themselves with diagnostic microbiology CO3: Know the procedure for high-end Instrumentation CO4: Students will analyze the applications of molecular methods in clinical research

Head
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