

PG CURRICULUM: TOTAL MARKS: 1600

CREDITS-96

SEMESTER I: TOTAM MARKS 400 ,

FOR EACH PAPER THEORY 70 MARKS (10 CIA+60 END SEM) PRACTICAL 30(20CIA+10 END SEM)

PAPER 1: <u>BASIC CLASSICAL</u> <u>MICROBIOLOGY</u>	THEORY 70 MODULE 1: Taxonomy & Diversity of Life forms MODULE 2: Physiology of microbes and plants	PRACTICAL 30 Different culture and staining techniques and characterization of microbes
PAPER 2 <u>BIOINSTRUMENTATION AND</u> <u>BIOENERGETICS</u>	THEORY 70 MODULE-1 Bioinstrumentation MODULE 2- Energy metabolism	PRACTICAL 30 TLC, Spectrophotometry, chromatographic technique, problems of Bioenergetics
PAPER 3: <u>MICROBIAL CELL</u> <u>BIOLOGY</u>	THEORY 70 MODULE 1: Microbial cellular structure MODULE 2: Microbial Cellular function	PRACTICAL 30 Identification of prokaryotic and eukaryotic cells, cell wall stripping
PAPER 4: <u>Enzymology and</u> <u>Chemical kinetics</u>	THEORY 70 MODULE 1: Enzymology MODULE 2: thermodynamics and chemical kinetics,	PRACTICAL 30 Enzymes extraction from different microbes and their characterization, problems on biochemical thermodynamics and chemical kinetics

SEMESTER II:

JH.PAPER 5- <u>ENVIRONMENTAL</u> <u>MICROBIOLOGY</u>	THEORY 70 MODULE 1: Environmental Microbiology of air, water MODULE 2: soil and agricultural microbiology	PRACTICAL 30 Role of PGPR, Determination of BOD, COD of water,
PAPER 6 <u>Molecular Biology (RDT)</u>	THEORY 70 MODULE-1 Molecular Biology MODULE 2- Recombinant DNA technology	PRACTICAL 30 Isolation of bacterial genome and plasmid DNA, cloning
PAPER 7: <u>FOOD AND</u> <u>INDUSTRIALMICROBIOLOGY</u>	THEORY 70 MODULE 1: Food microbiology MODULE 2: Industrial microbiology	PRACTICAL 30 Isolation and characterization of antibiotic producing microorganisms, role of yeast in bread making, microbial quality detection of foods like milk, pulses
PAPER 8: <u>IMMUNOLOGY AND</u> <u>CANCER BIOLOGY</u>	THEORY 70 MODULE 1: Immune cells and organs, antigens, MHC MODULE 2: Immunological techniques and cancer biology	PRACTICAL 30 Immunological techniques