Reg. No.:

G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.



PG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2025.

(For those admitted in June 2025 and later)

PROGRAMME AND BRANCH: M.Sc., BOTANY

SE	M CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
I	PART - III	CORE ELECTIVE - 1	P25B01E1A	MICROBIOLOGY, IMMUNOLOGY AND PLANT PATHOLOGY

Date & Session: 07.11.2025/FN Time: 3 hours Maximum: 75 Marks

Duto .	w 5000.		7.11.2025/FN Time . 5 hours maximum. 75 marks		
Course Outcome	Bloom's K-level	Q. No.	<u>SECTION - A (10 X 1 = 10 Marks)</u> Answer <u>ALL Questions.</u>		
CO1	K1	1.	A microorganism that can thrive in the presence of oxygen, but does not require it to grow would be a a) aerotolerant b) facultative anaerobe c) obligate aerobe d) obligate anaerobe		
CO1	K2	2.	A hemocytometer is a special counting chamber designed for counting a) Bones b) blood cells c) Nerves d) Pulse rate		
CO2	K1	3.	How do viruses infect plant? a) By attaching to the leaves c) By entering through the stem d) By entering through the roots		
CO2	K2	4.	The "witches broom" of legumes is caused by a a) fungus b) bacterium c) mycoplasma d) virus		
CO3	K1	5.	How do the microbial toxins effect the cell? a) Directly damaging host tissues b) Disabling the immune system c) Increases amount of lipids in cell d) Increases amount of proteins in cell		
CO3	K2	6.	How do airborne diseases spread? a) Through respiratory droplets b) consuming contaminated food c) direct contact with infected surfaces d) sharing personal items		
CO4	K1	7.	What type of cells are primarily responsible for cell-mediated immunity? a) B lymphocytes b) T lymphocytes c) Plasma cells d) Mast cells		
CO4	K2	8.	Which immunoglobulin class is most abundant in the body and can cross the placenta? a) IgM b) IgA c) IgG d) IgE		
CO5	K1	9.	What type of disease is tobacco mosaic? a) Fungal b) Viral c) Bacterial d) Nematode		
CO5	K2	10.	Little leaf of Brinjal is caused by a) insect vector b) mosquitoes c) nematode d) fruit fly		

Course Outcome	Bloom's K-level	Q. No.	$\frac{\text{SECTION} - B}{\text{Answer }} \text{ (5 X 5 = 25 Marks)}$ Answer $\frac{\text{ALL }}{\text{Questions choosing either (a) or (b)}}$	
CO1	K2	11a.	Sketch out the general characteristics of bacteria. (OR)	
CO1	K2	11b.	Write a short note on the cultivation of bacteria.	
CO2	K2	12a.	Outline the structure of virus with illustration. (OR)	
CO2	K2	12b.	Explain the cultivation of viruses in embryonated eggs.	
CO3	КЗ	13a.	How microbes spoil the dairy products? (OR)	
CO3	КЗ	13b.	Determine the factors affecting microbial community in soil.	
CO4	КЗ	14a.	Categorize the types of immunity in our body system. (OR)	
CO4	КЗ	14b.	Articulate about ELISA.	
CO5	K4	15a.	Infer about the principles of plant infection. (OR)	
CO5	K4	15b.	Deduce about the disease late blight of potato.	

Course Outcome	Bloom's K-level	Q. No	<u>SECTION - C (5 X 8 = 40 Marks)</u> Answer <u>ALL Questions choosing either (a) or (b)</u>
CO1	K4	16a.	Enumerate the methods of bacterial growth. (OR)
CO1	K4	16b.	Give an account on the genetic recombination of bacteria.
CO2	K5	17a.	Analyze the classification and replication of bacteriophages. (OR)
CO2	K5	17b.	Discuss the phycoviruses and micoviruses.
CO3	K5	18a.	Defend the beneficial role of microbes in various food products. (OR)
CO3	K5	18b.	Assess the different types of techniques used to preserve the food.
CO4	K5	19a.	Evaluate the properties and types of antigen. (OR)
CO4	K5	19b.	Comment about the various types of Antigen – Antibody interactions.
CO5	K6	20a.	Predict the abiotic causes of plant diseases. (OR)
CO5	K6	20b.	Compose the mechanism of penetration of pathogens in plants.