QP CODE: D2BBT2401	**(Pages: 2)**	**Reg. No**	**: .....**
		Name	**: .....**

SECOND SEMESTER FYUGP EXAMINATION, APRIL 2025

MAJOR COURSE

BOT2CJ101 : Microbial Diversity and Phytopathology

(Credits: 4)

Time: 2 Hours **Maximum Marks: 70**

Section A

Answer the following questions. Each carries 3 marks (Ceiling: 24 marks)

1.	Define a virus and mention its key characteristics.	BL1	CO1, CO3
2.	Write the mechanism of action of any two antibiotics	BL1	CO1, CO2, CO3, CO4, CO5
3.	Name two commonly used streaking techniques for pure culture isolation.	BL1	CO1, CO2, CO3, CO4, CO5
4.	What are integral and peripheral proteins in the bacterial cell membrane?	BL1	CO1, CO2, CO3
5.	Name any three extremophiles and its applications?	BL2	CO1, CO3, CO4
6.	What are soil microbes? How does they help in plant growth?	BL1	CO1, CO3, CO4
7.	What is the difference between an epidemic and a pandemic?	BL1	CO1, CO3, CO4, CO5
8.	Differentiate between mildews and other fungal infections with examples.	BL3	CO5
9.	Determine the causal agent of citrus canker and list its symptoms.	BL3	CO5
10.	Define host-parasite interaction. Illustrate with an example.	BL3	CO5

(PTO)

Section B			
Answer the following questions. Each carries 6 marks (Ceiling: 36 Marks)			
11.	How did R.H. Whittaker classify the animal kingdom, and what criteria were used to distinguish animals from other kingdoms?	BL2	CO3
12.	Comment on Cultural control of diseases.	BL2	CO5
13.	Describe the structural differences between prions and viroids.	BL1	CO1, CO2, CO3, CO4
14.	How has our understanding of human microbiomes changed in recent decades, and why is it important for health?	BL2	CO1, CO3, CO4
15.	How do structural differences in bacterial cell walls influence antibiotic susceptibility?	BL3	CO1, CO2, CO3
16.	What are the key structural components of a virus that make it effective as a genetic engineering tool?	BL2	CO1, CO3, CO4
17.	Explain the process of bacterial conjugation with a diagram.	BL2	CO1, CO2, CO3, CO4, CO5
18.	Compare and contrast binary fission and budding as methods of bacterial reproduction.	BL1	CO1, CO2, CO3, CO4
Section C			
Answer any one question. Each carries 10 marks (1 x 10 = 10 Marks)			
19.	Compare and contrast different bacterial culture preservation methods, including refrigeration, lyophilization, and cryopreservation	BL2	CO1, CO2, CO3, CO4, CO5
20.	Write an essay on Microbiology in Medicine.	BL2	CO1, CO3, CO4
	CO : Course Outcome		
	BL : Bloom's Taxonomy Levels (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)		