



**School:** School of Science  
**Program/s:** Division of Biomedical and Life Sciences  
**Year:** 2<sup>nd</sup> **Semester:** 3<sup>rd</sup>  
**Examination:** End Semester Examination  
**Examination year:** December 2022

**Course Code:** LS167

**Course Name:** Immunology: Plant Defense Mechanisms

**Date:** 13/12/2022

**Time:** 8:30 am to 10:30 am

**Total Marks:** 40

**Total Pages:** 02

*Instructions:*

- Use of a calculator is ~~permitted~~/not permitted.
- Draw neat and labelled diagrams/charts wherever necessary.

Q. No.	Details	Marks	COs'	BTL#
Q.1	<b>Answer the following objective type questions:</b> <b>(6 Marks)</b>			
1.	Name the process in which gum produced by the plants and trees.	1	CO1	BT1
2.	..... provide openings in the epidermis and play a defensive role due to high osmotic concentration of the nectar.	1	CO2	BT3
3.	Lenticels that suberise rapidly so that their size is reduced may physically exclude pathogens such as ..... the cause of common scab of potato.	1	CO3	BT2
4.	..... are the overgrowths of the protoplast of adjacent living parenchymatous cells, which protrude into xylem vessels through pits.	1	CO4	BT3
5.	..... plays a defensive role by forming a hydrophobic surface where water is repelled.	1	CO4	BT3
6.	State the role of sclerenchyma cells in pre-existing structural defense mechanism.	1	CO1	BT1

Q.2	Answer the following in brief: Marks)	(2 x 2 = 4	CO1, CO2, CO3, CO4	BT1, BT2, BT3
	1. What are allelochemicals?	2		
	2. Define: Host and Pathogen.	2		
Q.3	Answer <u>any five</u> of the following: 30 Marks)	(5 x 6 =	CO1, CO2, CO3, CO4	BT1, BT2, BT3
	1. Comment upon the pre-existing structural defense mechanisms in plants.	6		
	2. Write a short note on Allelopathy.	6		
	3. Give any two examples of histological defense structures, with its pathogen and host species.	6		
	4. Discuss upon the biochemical defense mechanism in plants.	6		
	5. Write a short note on Plant Quarantine.	6		
	6. Explain Hypersensitive Response in your own words.	6		

\*\*\*\*\*End of Question Paper\*\*\*\*\*