

**UNIVERSITY OF RUHUNA**  
**BACHELOR OF SCIENCE (SPECIAL) DEGREE LEVEL II (SEMESTER I)**  
**EXAMINATION – FEBRUARY 2021**

**SUBJECT: BOTANY**

**COURSE UNIT: BOT 4042 APPLIED MICROBIOLOGY**

**Time: Two (2) hours**



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**Answer FOUR questions.**

1. Describe the traits of Plant Growth Promoting Rhizobacteria (PGPR) and their effect on the improvement of plant health.
2. (a) What do you understand by the term “Extremophiles”?  
(b) Discuss the characteristics found in different category of extremophilic bacteria that are important for industrial applications.
3. Describe the involvement of microorganisms and their activity in the manufacturing process of cheese.
4. Discuss the current trends in “omics” based approaches in the discovery of new antibiotics and their advantages over conventional methods.
5. (a) “Malting and mashing of grains facilitate sugar fermentation during the process of brewing beer”. Briefly discuss this statement.  
(b) Describe the processes of primary and secondary fermentation in beer making.

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