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The Assam Royal Global University, Guwahati

Royal School of Pharmacy

B. Pharmacy III Semester

Special Supplementary Examination, August 2024

Course Title: Pharmaceutical Microbiology

Course Code: PHR232C303

Time: 3 Hours

Maximum Marks: 75

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks.

Section – A

1. Attempt **all** questions. (Maximum word limit 50) 2.5 x 8
- Differentiate between lag phase and stationary phase for growth curve of bacteria.
 - Differentiate between acid fast and non-acid fast bacteria.
 - Write about streak plate method and its uses.
 - Mention any four applications of moist heat sterilization.
 - Enlist the ideal properties of disinfectant.
 - Draw a flow diagram of an aseptic area.
 - Write about the composition of Sabouraud agar media.
 - Write a note on spread plate method for isolation of bacteria.

Section – B

2. Attempt **any one** of the following: 13 x 1
- Explain about the principle and application of dark field microscopy.
 - Describe about the morphology of bacteria with suitable example and diagram.
3. Attempt **any two** of the following: 7x 2
- Explain about simple and negative staining method for identification of bacteria.
 - Describe biochemical tests for differentiation of bacteria.
 - Explain about spore and capsule staining method for identification of bacteria.
4. Attempt **any two** of the following: 7 x 2
- Explain about the steps involved in sterility testing method.
 - Explain principles involved in microbiological assay of antibiotics.
 - Write in detail about the construction and design of an aseptic room.
5. Attempt **any two** of the following: 7 x 2
- Describe construction and working of laminar air flow.
 - Explain principles involved in microbiological assay of amino acid.
 - Explain the different sources and types of microbial contamination of pharmaceuticals.