

**B.PHARM**  
**(SEM-V) THEORY EXAMINATION 2019-20**  
**PHARMACEUTICS-VII (PHARMACEUTICAL & FOOD MICROBIOLOGY)**

**Time: 3 Hours****Total Marks: 100****Note:** Attempt all Sections.**SECTION A**

- 1. Attempt all questions in brief. 2 x 10 = 20**
- a. What are the limitations of electron microscopy?
  - b. Lipopolysaccharide is a major constituent of cell wall in.....
  - c. Enlist the nutritional requirements of bacteria.
  - d. Differentiate pure and mixed culture.
  - e. Biological indicator for radiation sterilization is.....
  - f. Destruction or inhibition of microorganisms in living tissues is known as .....
  - g. Define biological indicator.
  - h. Enlist several types of microbial food spoilage.
  - i. What is microbial assay?
  - j. Define the term 'sterility'.

**SECTION B**

- 2. Attempt any three of the following: 10x3=30**
- a. Discuss the ways in which microorganisms are classified based on their requirements for pH and temperature requirements.
  - b. Write notes on control of nosocomial infections.
  - c. Describe how an autoclave works. What conditions are required for sterilization by moist heat, and what three things must one do when operating an autoclave to help ensure success?
  - d. Discuss microbial flora of eggs, fruits and vegetables.
  - e. Explain microbial assay of Erythromycine.

**SECTION C**

- 3. Attempt any one part of the following: 10x1=10**
- a. Describe the principle, working and limitation of optical microscope.
  - b. Classify staining technique. Discuss the procedure and application of acid fast and Gram's staining.
- 4. Attempt any one part of the following: 10x1=10**
- a. What is factory hygiene? State methods to control microbial contamination during manufacturing.
  - b. Describe the concept and design of clean and aseptic area.
- 5. Attempt any one part of the following: 10x1=10**
- a. Describe the bacteriological filters used to sterilize fluids.
  - b. What are the antiseptics? Write a note on evaluation of disinfectant.
- 6. Attempt any one part of the following: 10x1=10**
- a. List and describe the principles upon which methods of food preservation are based.
  - b. Write a note on probiotic milk and ice-cream.
- 7. Attempt any one part of the following: 10x1=10**
- a. Write a note on preservative efficacy.
  - b. Describe in detail test for sterility as per I.P.