

Code No: PH202

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**Pharm.D II Year Supplementary Examinations, October/November - 2019****PHARMACEUTICAL MICROBIOLOGY****Time: 3hours****Max.Marks:70****Answer any five questions****All questions carry equal marks**

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1. Write about:
 - a) Historical contributions of Antonie Van Leeuwen Hock, Edward Jenner, Louis Pasteur and Robert Koch.
 - b) Major divisions of microbial world and their relation. [7+7]
- 2.a) Explain the study of different media required for the growth of microbes.
b) Write a detailed note on determination of viable counts. [9+5]
3. Describe the principle and method of:
 - a) Gram's staining
 - b) Acid fast staining. [7+7]
4. Explain the following methods of sterilization and add notes on merits and demerits in each case.
 - a) Filtration sterilization
 - b) Radiation sterilization
 - c) Gaseous sterilization. [5+5+4]
5. Write about:
 - a) Bactericidal, bacteristatic, and virucide-give examples and their mechanism of action.
 - b) validation of autoclave. [9+5]
6. Describe the following:
 - a) Antigen-Antibody reactions
 - b) Exo and Endotoxins. [10+4]
7. Write about:
 - a) Microbiological assays-different types and importance
 - b) Microbiological assay of Vit B2 [8+6]
8. Write about the symptoms, source, spread and control of the following:
 - a) Typhoid
 - b) Syphilis
 - c) HIV. [5+5+4]

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