

**FACULTY OF PHARMACY****B. Pharmacy III Year I-Semester (Main) Examination, November 2013****Subject : Pharmaceutical Microbiology****Paper - Theory****Time: 3 Hours****Max.Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1.(a) i) Explain different methods of bacterial count. 10  
ii) Write about bright field microscopy. 4  
**OR**
- (b) i) Explain about preservation of pure cultures. 10  
ii) Distinguish between autotrophs and heterotrophs. 4
- 2.(a) i) Explain the process of physical and chemical mutagenesis. 10  
ii) Explain about acid fast staining. 4  
**OR**
- (b) Explain lytic and lysogenic cycle in viruses. 14
- 3.(a) Explain in detail about heat sterilization. 14  
**OR**
- (b) Explain factors influencing disinfectants and dynamics of disinfections. 14
- 4.(a) Describe the process of cellular and humoral immunity. 14  
**OR**
- (b) What are antigens and antibodies? Describe in detail about precipitation and agglutination reactions. 14
- 5.(a) i) Write a note on general modes of transmission of diseases. 7  
ii) Write the symptoms of diphtheria and polio. 7  
**OR**
- (b) i) Write a note on penicillium species. 10  
ii) Write the modes of transmission of tuberculosis. 4

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