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Code No. : **7010****FACULTY OF TECHNOLOGY****B. Pharmacy — II Year (I Semester) (Suppl.) Examination, June 2010****PHARMACEUTICAL MICROBIOLOGY****Time: 3 Hours]****[Max. Marks: 70***Note : Answer all questions. All questions carry equal marks.*

1. a) i) Explain the principle and application of fluorescence microscopy. **10**
ii) Define and classify microbes with suitable examples. **4**
OR
b) i) Describe the different techniques used for the isolation of micro-organisms in pure culture. **7**
ii) Explain about the different methods of bacterial cell count. **7**
2. a) i) Describe the different types of mutations and how they affect the genetic code. **7**
ii) Explain the mode of action of UV light and nitrous acid. **7**
OR
b) i) Discuss the morphology and reproduction in molds. **8**
ii) What are point and 'frame shift' mutations? Explain how modifications are different from mutations. **6**
3. a) i) Explain the mode of action and practical application of the following : **8**
A) Alkylating agents B) Heavy metals
ii) Write about sterilization by filtration. **6**
OR
b) i) Classify sterilization methods. What are non-thermal methods of sterilization? **10**
ii) Write a note on sterilization by radiation. **4**



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4. a) i) Describe various types of immunity with suitable examples. 10

ii) Write a note on Opsonization. 4

OR

b) i) Explain the antigen-antibody reactions. 8

ii) Write a note on immunoglobulins. 6

5. a) i) Write a note on presumptive test and confirmed test in identification of coliform bacteria.

ii) Write the mode of transmission, diagnosis and treatment of the following diseases: 8

i) Influenza

ii) Filariasis

OR

b) i) Describe the systematic study of streptomyces species. 6

ii) Explain the principle, procedure and applications of pasteurization. 8