

**B. N. BANDODKAR COLLEGE OF SCIENCE, THANE**  
**II SEMESTER END EXAMINATION- MARCH - 2015**  
**F.Y.B.Sc.**  
**USMB- 202**

**Duration: 2 hrs 30 min**

**Total Marks: 75**

- N. B.** 1) All questions are compulsory.  
2) Figures to right indicate full marks.  
3) Draw neat and labeled diagrams wherever necessary

**Q.1 Answer the following (Any 2 of 4). 20M**

- 1 Discuss: Fungal and bacterial endophytes.
- 2 Explain normal flora of human body.
- 3 Discuss mutualism & Competition type of microbial interaction with examples.
- 4 Explain Amensalism and Commensalism type of microbial interaction with example.

**Q.2 Answer the following (Any 2 of 4). 20M**

- 1 Explain in brief the antibody mediated & cell mediated immunity.
- 2 Justify – ‘First line of defense plays an important role in any infection.’
- 3 Discuss Zoonotic infections with suitable examples.
- 4 Justify – ‘Various host factors play an important role in an infection.’

**Q.3 Answer the following (Any 2 of 4). 20M**

- 1 Explain validation and calibration of hot air oven and give their applications.
- 2 Give the principal, working and applications of SEM.
- 3 Explain parts of light microscope and significance of each part.
- 4 What is pH meter? What are its components? Explain validation and calibration of pH meter.

**P.T.O.**

**Q.4 Answer the following.**

**a**

**i** Name any two organisms that exist as a normal flora of eye. **OR**  
Give examples of predation type of microbial interaction. **2M**

**ii** What is phagocytosis? **OR**  
What is Clinical & Subclinical infection? **2M**

**iii** Give Beer's Lambert's law. **OR**  
Give uses of Calomel electrode. **1M**

**b**

**i** Define Rhizosphere. **OR**  
Define phyllosphere. **1M**

**ii** Explain briefly secondary infection with an example. **OR**  
What is species resistance? **2M**

**iii** Give significance of walk-in incubators in industry. **OR**  
Give significance of electron microscope. **2M**

**c**

**i** Explain parasitism. **OR**  
Define Gnotobiotic animals. **2M**

**ii** Define Occupational disorder. **OR**  
Define Contagious infection. **1M**

**iii** Give principle of autoclave. **OR**  
Give uses of colorimeter. **2M**

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