

Elective paper BT 204 Pharmaceutical Microbiology

Section I

Unit 1

- 1.1. Antibiotics and synthetic antimicrobial agents .Antifungal antibiotics,
- 1.2. Antitumor substances, Peptide antibiotics
- 1.3. Chloramphenicol, Sulphonamides and Quinolone antimicrobial agents.
- 1.4. Chemical disinfectants, antiseptics and preservatives.

Unit 2

- 2.1. Mechanism of action of antibiotics (inhibitors of cell wall synthesis, nucleic acid and protein synthesis)
- 2.2. Molecular principles of drug targeting
- 2.3. Mode of action of quinolones
- 2.4. Drug resistance in pathogens.

Section II

Unit 3

- 3.1. Microbial contamination and spoilage of pharmaceutical products
- 3.2. Concept of sterilization in pharmaceutical industry.
- 3.3. Manufacturing procedures and in process control of pharmaceuticals
- 3.4. Financing R&D capital and market outlook. IP, BP, USP

Unit 4

- 4.1. Good Manufacturing Practices (GMP and good laboratory practices (GLP). ;
- 4.2. Regulatory aspects of quality control.
- 4.3. Quality assurance and quality management in pharmaceutical industry.
- 4.4. ISO,WHO and US certifications.

References

- 1 . Pharmaceutical Microbiology – Edt. by W.B.Hugo & A.D.Russell Sixth edition. Blackwell scientific Publications.
2. Analytical Microbiology –Edt by Frederick Kavanagh Volume I & II. Academic Press New York.
3. Quinolone antimicrobial agents – Edt. by David C. Hooper, John S.Wolfson .ASM Washington DC.
4. Quality control in the Pharmaceutical Industry - Edt. by Murray S.Cooper Vol.2. Academic Press New York.