

B.Pharm 3rd year, 2nd semester Examination 2022

Time: 3 Hrs

Subject – Applied Microbiology –II.

Full marks: 100

Answer any five questions from the following:

1. a) Define: Immunotherapy, Chemoprophylaxis, Chemotherapeutic index, Spectrum of activity. [10]
b) What is 6-APA? Write the therapeutic importance of 6-APA. [10]
2. Write a brief note on biosynthesis of Benzyl Penicillin. [20]
3. What is Penicilloic acid? Explain why Clavulanic acid is used along with Amoxicillin? Write the source of Clavulanic acid. [6+10+4]
4. Differentiate the following:
 - a) Drug Resistance and Drug Tolerance
 - b) Antibiotic and Antimicrobial agents
 - c) MIC and MEC ; Bacteriostatic and Bactericidal
 - d) Chemotherapy and Cancer therapy [5x4=20]
5. Classify antimicrobial agents according to their different sources and mechanism of actions with examples. [20]
6. Write short notes on:
 - a) Strain improvement
 - b) Bacterial resistance to antimicrobial agents
 - c) Long acting Penicillin and its mode of action
 - d) Multi Drug Therapy [5x4=20]
7. a) Write the therapeutic importance of Dextran. [4]
b) Define: Prebiotic, Probiotic, Synbiotic, Dysbiosis, Psychobiotics. [10]
c) What is sterile air? Write its industrial application. [2+4=6]
