

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**BSc DEGREE EXAMINATION MAY 2019**  
(Fifth Semester)

Branch - **MICROBIOLOGY**

**CORE ELECTIVE -1 ANTIMICROBIAL & CHEMOTHERAPY**

Time : Three Hours

Maximum: 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Bacteriostatic.
- 2 Broad spectrum antibiotics.
- 3 BPL.
- 4 Disinfectant.
- 5 Macro lides.
- 6 Acyclovir.
- 7 6-amino penicillanic acid.
- 8 R-plasmid.
- 9 Define drug resistance.
- 10 EUCAST.

**SECTION-B (25 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Give a brief account on mechanism of action of antimicrobial agents.  
OR  
b Define selective toxicity, therapeutic index and side effects. What are the desirable characteristics of antimicrobial drugs.
- 12 a Write an account of evaluation of antimicrobial agents effectiveness.  
OR  
b Write a note on the use of chemical agents in control.
- 13 a Write about structure, mode of action. Uses, side effects of amino glycoside antibiotics.  
OR  
b Structure, mode of action, effects of cephalosporins.
- 14 a Elaborate on antihelminthic drugs.  
OR  
b What is bacteremia? What are the drugs used for bacteremia?
- 15 a Define R plasmid and super infection. How are R plasmids involved in the spread of drug resistance.  
OR  
b Write an account on mechanisms of drug resistance.

**SECTION - C 130 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 What contributions to chemotherapy were made by enrich, Domagk, Fleming, Florey and chain and waksman?
- 17 Elaborate on the characteristics of an ideal antimicrobial chemical agent. Write an account on halogens as antimicrobial agents.
- 18 Describe different ways in which antiviral drugs disrupt virus reproduction, give example of each.
- 19 Explain in detail the drugs used to treat respiratory tract infections.
- 20 Give the ways in which the development of antibiotic resistant pathogens can be slowed or prevented.