

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023
(Fifth Semester)

Branch – MICROBIOLOGY

DISCIPLINE SPECIFIC ELECTIVE - I
ANTIMICROBIALS & CHEMOTHERAPY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. ----- is a method of using chemical drugs to kill pathogens
a) Physiotherapy
b) Chemotherapy
c) Naturopathy
d) *In-vitro* therapy
2. Phenol co-efficient test is done to determine the ----- of disinfectants
a) germicidal activity
b) structure
c) function
d) mode of action
3. ----- is an amino glycoside antibiotic.
a) Co-Trimoxazole
b) Fenicol
c) Chloromycetin
d) Gentamicin
4. Chloroquine is an ----- drug.
a) antibacterial
b) antiviral
c) antimalarial
d) antifungal
5. Drug resistance occurs when a pathogen becomes ----- susceptible to a drug.
a) more
b) less
c) extremely
d) moderately

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a. Briefly explain antimicrobial chemotherapy.
(OR)
b. Give a note on the development of chemotherapy field.
7. a. How do heavy metal compounds act against microbes? Describe in brief.
(OR)
b. State the applications of quaternary ammonium compounds.
8. a. Present the mechanism of action of penicillins.
(OR)
b. Mention the antiviral drugs. Explain the mode of action of any one antiviral drug.
9. a. Exemplify antihelminthic drugs in brief.
(OR)
b. What is Kirby- Bauer disc diffusion test? How is it important?
10. a. Briefly describe the origin of drug resistance.
(OR)
b. Define and explain drug and multi- drug resistance.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. a. Describe the factors that influence the effectiveness of antimicrobial drugs.

(OR)

b. Present in detail the general characteristics of antimicrobial drugs.

12. a. Explain phenol co-efficient test. Mention its significance.

(OR)

b. Bring out the mode of action and applications of alcohol.

13. a. List out antifungal drugs. Write the mode of action of any two antifungal drugs.

(OR)

b. Elaborate the mode of action of tetracycline.

14. a. Illustrate agar dilution method of antimicrobial susceptibility testing.

(OR)

b. Summarize the features of drugs used against respiratory tract infections.

15. a. How can the spread of antimicrobial resistance among microbes be controlled?
Discuss.

(OR)

b. With suitable diagrams, explain the efflux mechanism of microbial drug resistance.

Z-Z-Z END