

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2024  
(Fifth Semester)

Branch – MICROBIOLOGY

MAJOR ELECTIVE COURSE -I: PHARMACEUTICAL MICROBIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 The suitable method to cultivate animal viruses is / are \_\_\_\_\_.  
(i) Animals (ii) Bacterial cells  
(iii) Embryonated egg (iv) Both (i) and (iii)
- 2 Infection that results in pus formation is called \_\_\_\_\_.  
(i) Focal infection (ii) Chronic infection  
(iii) Pyogenic infection (iv) Acute infection
- 3 An antibiotic that possess antagonistic property against folate synthesis is \_\_\_\_\_.  
(i) Nalidixic acid (ii) Polymyxin  
(iii) Sulfonamide (iv) Tetracycline
- 4 *Klebsiella pneumoniae* is a \_\_\_\_\_.  
(i) facultative anaerobe (ii) obligate anaerobe  
(iii) Gram-positive bacilli (iv) motile organism
- 5 Propyl paraben is used as a \_\_\_\_\_.  
(i) Preservative (ii) colouring agent  
(iii) coating agent (iv) None of these

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Differentiate between viroids and prion.  
(or)  
b Write the merits and demerits of microorganisms in pharmaceuticals.
- 7 a Give an account on phagocytosis.  
(or)  
b Present the different ways to modulate inflammatory responses.
- 8 a Outline the drugs available against Gram positive coccal infection.  
(or)  
b Describe the uses of trimethoprim.
- 9 a Give short notes on pathogenicity of *Klebsiella* infections.  
(or)  
b Discuss briefly transmission and symptoms of diseases caused by *Acinetobacter* spp.
- 10 a Illustrate the assessment of microbial contamination.  
(or)  
b Enumerate the effects of preservative concentration.

Cont...

**SECTION -C (30 Marks)**Answer **ALL** questions**ALL** questions carry **EQUAL** Marks

(5 x 6 = 30)

- 11 a Discuss in detail cultivation of viruses to produce vaccines.  
(or)  
b Give a detailed account on the major categories of microbes with their pharmaceutical importance.
- 12 a Compare and contrast between partially invasive and non-invasive pathogens with suitable examples.  
(or)  
b Describe the normal microbial flora of human body.
- 13 a Explain about antiviral drugs.  
(or)  
b Elaborate the properties and uses of  $\beta$ -lactum and tetracycline antibiotics.
- 14 a Summarize the features vancomycin resistant enterococci.  
(or)  
b Give a note on healthcare associated infection caused by *Eschericia coli*.
- 15 a How to preserve pharmaceutical products using antimicrobial agents?  
(or)  
b State and explain the various sources of contamination of an aseptic area.

Z-Z-Z END