

SSR DEGREE AND PG COLLEGE (AUTONOMOUS)
DEPARTMENT OF MEDICAL LAB TECHNOLOGY (MLT)
SEMESTER – III, IMPORTANT QUESTIONS
PAPER- MICROBIOLOGY I

UNIT – I: Principles of Microbiology

Short Questions (4 Marks)

1. Germ theory of disease.
2. Koch's Postulates.
3. Importance of Microbiology.
4. Types of microscopes.
5. Classification of microorganisms.

Essay Questions (10 Marks)

1. Discuss the historical development of Microbiology and the contributions of Louis Pasteur and Robert Koch.
2. Explain Koch's Postulates and describe their significance and limitations in medical microbiology.
3. Discuss the importance and applications of Microbiology in medicine, public health and laboratory diagnosis.
4. Describe the principles of microscopy and classify microorganisms with suitable examples.

UNIT – II: General Characters of Microbes

Short Questions (4 Marks)

1. Gram staining.
2. Bacterial growth curve.
3. Culture media.
4. Antimicrobial agents.
5. Drug resistance.

Essay Questions (10 Marks)

1. Describe the morphology of bacteria and explain the different staining methods used in microbiology.
2. Explain bacterial nutrition, growth and the different types of culture media and culture methods.
3. Discuss the collection, transport and processing of clinical specimens for microbiological examination.
4. Explain the mechanism of action of antimicrobial agents and discuss measures for minimizing antimicrobial drug resistance.

UNIT – III: Sterilization and Disinfection

Short Questions (4 Marks)

1. Autoclave.
2. Hot air oven.
3. Disinfectants.
4. Biohazards.
5. Biosafety.

Essay Questions (10 Marks)

1. Explain the principles of sterilization and describe the different methods of sterilization.
2. Discuss disinfection and aseptic techniques.
3. Describe the physical and chemical methods of sterilization and disinfection with suitable examples.
4. Discuss operation theatre (OT) sterilization, biomedical waste management.

UNIT – IV: Infection and Infection Control

Short Questions (4 Marks)

1. Nosocomial infection.
2. Chain of infection.
3. Hand hygiene.
4. Universal precautions.
5. Hospital Infection Control Committee.

Essay Questions (10 Marks)

1. Define infection and explain the sources of infection, portals of entry and portals of exit.
2. Discuss standard (universal) safety precautions and hand hygiene in healthcare settings.
3. Describe hospital-acquired (nosocomial) infections and the factors responsible for their transmission.
4. Explain the principles and practices of hospital infection control.