

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[AHS 0321]

**MARCH 2021**

**Sub. Code: 1247**

**(AUGUST 2020 EXAM SESSION)**

**B.Sc. CRITICAL CARE TECHNOLOGY  
SECOND YEAR (From 2018-2019 onwards)  
PAPER II – CLINICAL MICROBIOLOGY  
Q.P. Code : 801247**

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Define biomedical waste. Explain the various methods of waste segregation and waste disposal.
2. What are the causative agents of Enteric Fever. Write in detail about clinical features, Lab diagnosis of enteric Fever.
3. Explain the clinical features lab diagnosis and prevention of Dengue Fever.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Robert Koch.
2. Bacterial growth Curve.
3. Autoclave.
4. Candidiasis.
5. Sample collection in Tuberculosis.
6. Lab Diagnosis of Malaria.
7. National Immunization schedule.
8. Prevention of HIV.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Acid fast staining.
2. Types of Microscope.
3. Typhus Fever.
4. Mention different Hepatitis virus and its route of transmission.
5. Sample collection in covid-19.
6. Tetanus toxoid.
7. Differentiate sterilization and Disinfection.
8. Universal Precaution.
9. Name the Dermatophytes.
10. Define nosocomial infection. Give two examples.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[AHS 0222]

**FEBRUARY 2022  
(AUGUST 2021 EXAM SESSION)**

**Sub. Code: 1247**

**B.Sc. CRITICAL CARE TECHNOLOGY  
SECOND YEAR (From 2018-2019 onwards)  
PAPER II – CLINICAL MICROBIOLOGY  
*Q.P. Code : 801247***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Define sterilization. Mention various methods of sterilization. Explain in detail about Moist heat sterilization.
2. Aetiology, pathogenesis, lab diagnosis of tuberculosis. Add note on prevention of TB.
3. Mode of Transmission, Lab diagnosis and prevention of HIV.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Waste Segregation.
2. Louis Pasteur.
3. Chemical Disinfection.
4. Blood Culture.
5. Antibodies.
6. Hood worm.
7. Quality control in Microbiology.
8. Dengue Fever.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Rabies Vaccine.
2. Fungal Sample collection.
3. Prevention of Covid-19.
4. Gram Staining.
5. Bacterial Spore.
6. Nosocomial UTI.
7. Hand hygiene.
8. Mention toxin produced in *cl.perfringens*.
9. Aysmptomatic Bacteriuria.
10. Prevention of Dengue Fever.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[AHS 0922]

SEPTEMBER 2022

Sub. Code: 1247

(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)

**B.Sc. CRITICAL CARE TECHNOLOGY  
SECOND YEAR (Regulation from 2018-2019)  
PAPER II – CLINICAL MICROBIOLOGY  
Q.P. Code : 801247**

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe HIV. Write in detail about the pathogenesis, laboratory diagnosis, treatment and prevention.
2. Describe in detail about Nosocomial Infections. Write an account of Ventilator-Associated Pneumonia and Urinary Tract Infections.
3. Write in detail about Bacterial Classification. Explain Grams Stain and difference between Gram Positive and Gram Negative Bacteria.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Explain the types of malaria parasite, life cycle, lab diagnosis.
2. Opportunistic Fungal Infections.
3. Elaborate Hepatitis B.
4. Universal safety precautions.
5. Describe pathogenesis and clinical manifestations of Dengue.
6. Explain Bacterial Toxins.
7. Write in detail about the physical methods of sterilization.
8. Hypersensitivity reactions.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Methods to disposable of Sharp materials.
2. Ziehl Neelsen Stain.
3. Drug Resistance in bacteria.
4. Septicemia.
5. Normal flora.
6. Respiratory Hygiene.
7. Miliary tuberculosis.
8. Transportation of Biological samples.
9. Epidemic infection.
10. Antimicrobial sensitivity testing.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[AHS 0423]

APRIL 2023

Sub. Code: 1247

**B.Sc. CRITICAL CARE TECHNOLOGY  
SECOND YEAR (Regulation 2018-2019 onwards)  
PAPER II – CLINICAL MICROBIOLOGY  
Q.P. Code: 801247**

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Explain in detail about the Moist Heat Sterilization.
2. Enumerate the Viruses causing Hepatitis. Describe the Laboratory Diagnostic methods of Hepatitis-B Virus Infection.
3. Enumerate the Parasites causing Malaria. Describe in detail about the Morphology, Life Cycle and Diagnosis of Plasmodium falciparum.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Modes of Transmission of Infections.
2. Type I Hypersensitivity reactions.
3. Principle and Mechanism of Hot Air Oven.
4. Waste Disposal Methods.
5. Pathogenesis of HIV.
6. Universal Precautions in Infection Control.
7. Types of Vaccines.
8. Ventilator Associated Pneumonia.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Transmission of Dengue.
2. Barrier nursing.
3. Give few examples of Catheter Associated Blood Stream Infections.
4. Toxoids.
5. Contributions of Antonie van Leeuwenhoek.
6. Infections caused by Escherichia coli.
7. How to diagnose Tuberculosis infection?
8. Skin disinfectants.
9. Gram staining.
10. PPE.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[AHS 1123]

NOVEMBER 2023

Sub. Code: 1247

**B.Sc. CRITICAL CARE TECHNOLOGY**  
**SECOND YEAR (Regulation 2018-2019 onwards)**  
**PAPER II – CLINICAL MICROBIOLOGY**  
*Q.P. Code: 801247*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe Sterilization. Describe in detail about the Physical and Chemical methods of Sterilization.
2. Explain in detail on Types of Surveillance in Hospital and its use in Prevention of Health Care Infections.
3. Explain the causes of HIV. Write account on Pathogenesis, Laboratory Diagnosis and Treatment.

**II. Write notes on:** **(8 x 5 = 40)**

1. Malaria.
2. Lab diagnosis for Typhoid.
3. Post Exposure Prophylaxis of Rabies.
4. Opportunistic Fungal Infections.
5. DNA virus and RNA virus.
6. Mode of Disease Transmission.
7. Role of Central Sterile Supply Department in Hospital.
8. Biomedical Waste Management.

**III. Short answers on:** **(10 x 3 = 30)**

1. Biosafety Cabinet.
2. Antonie van Leeuwenhoek.
3. Medically important Fungi.
4. Gram Staining.
5. Personal Protective Equipments.
6. Steps of Hand hygiene.
7. Central Line Associated Blood Stream Infection.
8. Vaccination for Hepatitis.
9. Sexually Transmitted Diseases.
10. Prevention of COVID19.

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