MD[Microbiology]

BF/2009/05

Applied Microbiology

[Paper-I]

Time : 3 Hours **M.M.: 100**

Note: Attempt all questions.

1. **Describe briefly about the following**: [2x15=30]
   a. Molecular techniques in diagnostic microbiology.
   b. Monoclonal antibody.

2. **Write short notes on the following**: [2x15=30]
   a. Serodiognosis of Visceral Leishmaniasis.
   b. Biomedical waste management.

3. **Write briefly on following**:
   a. Mycotoxin. [10]
   b. Recent progress in the development of Malaria vaccine. [15]
   c. Antiretroviral therapy. [15]

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General Principles of Microbiology including tissue reactions to Microbial infections

[Paper-II]

Time : 3 Hours **M.M.: 100**

Note: Attempt all questions.

1. a. Classify Hypersensitivity and discuss briefly the mechanism of each type with examples. [17]

   b. Write the types and functions of Plasmids. [17]

2. **Write short notes on**: [3x12=36]
   a. Theories of antibody formation.

   b. Rabies vaccine.

   c. Autoclave controls.

3. **Discuss briefly**: [3x10=30]
   a. Biosafety measures for health care workers.

   b. Quorum sensing in Bacteria.

   c. Metallo beta lactamase.

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Systemic Bacteriology,Mycology and Virology, Parasitology & Immunology

[Paper-III]

Time : 3 Hours **M.M.: 100**

Note: Attempt all questions.

1. **Discuss**:
   a. Chimeric and humanized monoclonal antibodies. [10]
   b. The role of molecular techniques in diagnosis of fungal infections. [20]
   c. How an acute hepatitis B viral infection is differentiated from a chronic infection. Which markers indicate resolution of infection. [10]

2. **Describe**:
   a. Viral Gastroenteritis. [10]
   b. New species of Entamoeba. [10]
   c. Sub cutaneous Filariasis. [10]

3. **Write short notes on**:
   a. What is the clinical significance of Corynebacterium species other than Corynebacterium diphtheriae. [10]
   b. Bacterial vaginosis. [10]
   c. Clinically significant non Fermentative Gram negative bacteria. [10]

MD[Microbiology]

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Recent advances in Microbiology, Virology, Mycology & Parasitology & Molecular Biology

[Paper-IV]

Time : 3 Hours **M.M.: 100**

Note: Attempt all questions.

1. **Describe the following**: [4x10=40]
   a. ESBL detection in the laboratory.
   b. Pneumocystis Jiroveci.
   c. Laboratory diagnosis of HIV infection in paediatric age group.
   d. Quality assurance in Microbiology laboratory.

2. **Write short notes on**: [2x10=20]
   a. Recent advances in diagnosis of Tuberculosis.
   b. Nosocomial infection caused by Non Tubercular Mycobacterium.

3. **Discuss the following**: [4x10=40]
   a. Role of Nano technology in Microbiology.
   b. Non Neural rabies vaccine.
   c. Recent advances in the diagnosis of Visceral Leishmaniasis.
   d. Immuno modulators
