

**POST GRADUATE EXAMINATION, JUNE - 2021**

**MD MICROBIOLOGY  
(PAPER ONE)**

**GENERAL BACTERIOLOGY & IMMUNOLOGY**

**[Time allotted: Three hours]**

**[Max Marks: 100]**

**Note:** Attempt all questions  
Illustrate with suitable diagrams.

- Q. 1.** Describe in detail antibiotic stewardship in India. **(20)**
- Q. 2.** Describe in detail the epidemiological markers for microorganisms. **(20)**
- Q. 3. Describe briefly:** **(3 x 10 = 30)**
- a. Premonition immunity
  - b. Efficacy testing of disinfectants
  - c. Biofilms in bacterial infection
- Q. 4. Write short notes on:** **(5 x 6 = 30)**
- a. Disposal of biomedical waste.
  - b. Point of care test in microbiology.
  - c. Role of microbiologist in HICC.
  - d. Hybrid vectors
  - e. Super antigens.

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POST GRADUATE EXAMINATION, JUNE - 2021

MD MICROBIOLOGY  
(PAPER TWO)

SYSTEMIC BACTERIOLOGY & MYCOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

**Note:** Attempt all questions  
Illustrate with suitable diagrams.

**Q. 1.** Discuss the laboratory diagnosis tuberculosis. What is XDR tuberculosis? What is Revised National Tuberculosis Control Programme (RNTCP)? (20)

**Q. 2.** Discuss the systemic fungal infection in human being and antifungal agents. (20)

**Q. 3. Describe briefly:** (3 x 10 = 30)

- a. Super antigens of *Staphylococcus aureus*
- b. Gut microbiome
- c. Vaccines against *Salmonella Typhi*

**Q. 4. Write short notes on:** (5 x 6 = 30)

- a. Mycetoma
- b. Mycoplasma infections
- c. Laboratory diagnosis of anaerobic infections
- d. Enteroaggregative *Escherichia coli*
- e. Rhinosporidiosis

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## POST GRADUATE EXAMINATION, JUNE - 2021

## MD MICROBIOLOGY

## (PAPER THREE)

## VIROLOGY AND PARASITOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

**Note:** Attempt all questions  
Illustrate with suitable diagrams.

**Q. 1.** Discuss the treatment of HIV infection. (20)

**Q. 2.** Discuss helminths that cause true diarrhoea. (20)  
(Enumerate species, describe important clinical features and laboratory diagnosis and mention treatment options)

**Q. 3. Describe briefly:** (3 x 10 = 30)

- Drug resistance in *Leishmania donovani*
- Ebola virus
- Congenital viral infections

**Q. 4. Write short notes on:** (5 x 6 = 30)

- Acanthamoeba spp.*
- Epidemiology of SARS-Cov-2 in India
- Dengue vaccines
- Strongyloides stercoralis*
- Zika virus

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**POST GRADUATE EXAMINATION, JUNE - 2021**

**MD MICROBIOLOGY  
(PAPER FOUR)**

**RECENT ADVANCES**

**[Time allotted: Three hours]**

**[Max Marks: 100]**

**Note:** Attempt all questions  
Illustrate with suitable diagrams.

**Q. 1.** Discuss the strategies of vaccine development and clinical trials. Add a note on H<sub>1</sub>N<sub>1</sub> vaccine. (20)

**Q. 2.** Describe in detail the molecular methods of diagnosis used in microbiology. (20)

**Q. 3. Describe briefly:** (3 x 10 = 30)

- a. Rapid automated systems used in microbiology
- b. Diagnosis of Covid-19
- c. Ventilator associated pneumonia

**Q. 4. Write short notes on:** (5 x 6 = 30)

- a. Bacteriological examination of milk
- b. Standard work precautions
- c. Vancomycin resistant Enterococci
- d. Ribotyping
- e. Revised national tuberculosis control programme (RNTCP)

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