Rajiv Gandhi University of Health Sciences

M.D. Degree Examination - MAY 2017

[Time: 3 Hours] **[Max. Marks: 100]**

MICROBIOLOGY
GENERAL MICROBIOLOGY AND IMMUNOLOGY
PAPER – I (RS)
Q.P. CODE: 7355

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer all questions

LONG ESSAY **2 X 20 = 40 Marks**

1. Classify antigen-antibody reactions. Discuss in detail about precipitation reactions. Add a note on Chemiluminescence assay.
2. Discuss the methods of gene transfer in bacteria. Add a note on genetic engineering.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Autoclave
4. T – cells
5. Anaphylaxis
6. Bacteriocins
7. Major histocompatibility complex
8. Innate immunity

* * * * *

Rajiv Gandhi University of Health Sciences

Post Graduate Degree Examination – MAY 2017

Time: Three Hours **Max. Marks: 100 Marks**

MD MICROBIOLOGY
SYSTEMATIC BACTERIOLOGY
PAPER- II
(Revised Scheme)
Q. P. CODE: 7356

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS **2 x 20 = 40 Marks**

1. Discuss the aetiology and laboratory diagnosis of food poisoning. Add a note on modes of tracing the source of infection.

2. Enumerate the microbiological agents of bioterrorism. How should a microbiological laboratory be prepared to diagnose a case of anthrax

SHORT ESSAYS **6 x 10 = 60 Marks**

3. Drug resistance in Pseudomonas

4. Ventilator Associated Pneumonia

5. Newer diagnostic methods for tuberculosis

6. Helicobacter pylori

7. Typhus fever

8. Toxins and enzymes produced by Streptococcus pyogenes

*****

Rajiv Gandhi University of Health Sciences

M.D. Degree Examination – <<>>

[Time: 3 Hours] [Max. Marks: 100]

MICROBIOLOGY MYCOLOGY AND VIROLOGY PAPER – III (RS)

Q.P. CODE: 7357

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAY **2 X 20 = 40 Marks**

1. Describe viral multiplication with examples
2. Classify subcutaneous mycoses. Write in detail on mycotic mycetoma.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Cryptococcosis
4. Gnfluenlall / H1 N1 virms
5. Rhinosporidiosis
6. Prions
7. Enumerate haemorrhagic viral infections
8. Cytomegalovirus.

* * * * *

Rajiv Gandhi University of Health Sciences

M.D. Degree Examination – JUNE 2017

[Time: 3 Hours] **[Max. Marks: 100]**

MICROBIOLOGY
SYSTEMATIC BACTERIOLOGY PARASITOLOGY - PAPER – IV
Q.P. CODE: 7358

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer all questions

LONG ESSAY **2 X 20 = 40 Marks**

1. Discuss the life cycle, pathogenesis and laboratory diagnosis of Wucheraria bancrofti.
2. Discuss the life cycle, pathogenesis and laboratory diagnosis of Leishmania donovani.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Cryptosporidiosis
4. Hymenolepis nana
5. Complications of falciparum malaria
6. Trichinella spiralis
7. Toxoplasmosis
8. Cysticercosis

* * * * *

Rajiv Gandhi University of Health Sciences

M.D. Degree Examination - NOVEMBER 2017

[Time: 3 Hours] **[Max. Marks: 100]**

MICROBIOLOGY
PAPER – I
Q.P. CODE: 7355

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

Answer all the Questions **10 X 10 = 100 Marks**

1. Describe carbohydrate utilization by bacteria in detail. Describe factors affecting growth and metabolism of bacteria.
2. Name the three pathways of activation of the complement system. What triggers the activation of each of these pathways? Discuss briefly the ways in which the complement system tackles infection.
3. Laboratory waste management protocol.
4. Enumerate various tests used for determining the efficacy of disinfectants. Discuss briefly any one.
5. Discuss in detail mechanisms by which bacteria evade immune response.
6. What is the role of a microbiologist in the hospital infection control committee?
7. Disinfection procedure for the operation theatre and its periodic assessment.
8. Discuss various types of microbiological biosafety cabinets and its performance testing.
9. Methods of producing anaerobiosis.
10. Western blot test.

* * * * *

Rajiv Gandhi University of Health Sciences

M.D. Degree Examination - NOV 2017

[Time: 3 Hours] **[Max. Marks: 100]**

MICROBIOLOGY
PAPER – II
Q.P. CODE: 7356

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

Answer all the Questions **10 X 10 = 100 Marks**

1. Discuss the aetiology, pathogenesis and laboratory diagnosis of gas gangrene.
2. Discuss the aetiology, pathogenesis and laboratory diagnosis of bacterial endocarditis, including management of culture negative endocarditis.
3. Vibrio cholera O 139.
4. Discuss how you would exclude a bacterial etiological agent in a patient presenting with fever and rash of one week duration.
5. Laboratory diagnosis of non tuberculous mycobacterial infections.
6. Discuss the laboratory diagnosis of infections due to acinetobacter baumanii and management of drug resistance in this bacteria.
7. Give an account of the infectious agents transmitted by milk and milk products and strategies adopted to prevent these infections as a public health microbiologist.
8. Laboratory diagnosis of enteric fever.
9. Helicobacter Pylori.
10. Serodiagnosis of brucellosis.

* * * * *

Rajiv Gandhi University of Health Sciences

M.D. Degree Examination – NOV – 2017

[Time: 3 Hours] **[Max. Marks: 100]**

MICROBIOLOGY
PAPER – III
Q.P. CODE: 7357

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

Answer all the Questions **10 X 10 = 100 Marks**

1. List the aetiological agents, and outline the predisposing factors, pathogenesis and clinical presentations of fungal endocarditis and discuss its diagnosis.
2. Describe the consequences of maternal rubella at successive stages of pregnancy. Discuss the measures you would recommend to minimize the consequences of rubella infection.
3. Antifungal susceptibility testing.
4. Discuss pathogenesis of candida infections resulting from indwelling medical devices.
5. As a consultant microbiologist in a tertiary teaching hospital where laboratory diagnosis of fungal infections is to be established, what mycology service can be offered to different specialties in the hospital? How would you organize the laboratory to provide these services?
6. Viral agents transmitted through corneal transplants and laboratory diagnosis of the same.
7. Continuous cell lines.
8. Rota virus.
9. Non culture methods for detection of fungal infections.
10. Human Parvovirus B19.

* * * * *

Rajiv Gandhi University of Health Sciences

Post Graduate Degree Examination – NOV 2017

Time: Three Hours **Max. Marks: 100 Marks**

MD MICROBIOLOGY
SYSTEMATIC BACTERIOLOGY
PARASITOLOGY
PAPER- IV
Q. P. CODE: 7358

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

Answer all the Questions **10 x 10 = 100 Marks**

1. Immunodiagnostic methods for parasitic infections.

2. Describe the pathogenesis and laboratory diagnosis of leishmaniasis. Write a brief note on current status on vaccine development.

3. Laboratory diagnosis of extraintestinal amoebiasis.

4. Cysticercus cellulosae.

5. Paragonimus westermanii.

6. Guinea worm eradication programme.

7. Malaria vaccine.

8. Strongyloides stercoralis.

9. Life cycle of Ascaris lumbricoides.

10. Life cycle of Hymenolopis nana.

*****