Rajiv Gandhi University of Health Sciences

M.D. Degree Examination - MAY-2019

[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. Classify and describe the principles of the Polymerase Chain Reaction and critically evaluate their value in diagnostic microbiology. Add a note on RT-PCR.
2. Outline the general properties of cytokines. Enumerate the three cytokines which play a major role in the acute phase response and describe how they act to combat infection.
3. Role played by a microbiologist in occupational exposure of blood and body fluids in a health care setting.
4. Describe the criteria for assessing and the control measures you would adopt to ensure the quality of culture media in a diagnostic laboratory.
5. List the mechanisms through which a change may occur in the genome of a bacterial cell. Describe any one of these mechanisms. Explain how these mechanisms lead to the spread of antimicrobial resistance.
6. What is an antibiotic policy? Discuss stating advantages and disadvantages and how you would develop an antibiotic policy for use in a medical college.
7. Cleaning and sterilization procedure for glassware used in microbiology.
8. Discuss the role of B cells in immune response.
9. Use of monoclonal antibodies in diagnostic microbiology.
10. Spaulding classification for sterlisation.

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Rajiv Gandhi University of Health Sciences

M.D. Degree Examination - MAY-2019

[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. Write an essay on recent advances in laboratory diagnosis of tuberculosis.
2. Classify Rickettsiae. Describe the pathogenesis of Scrub typhus and its laboratory diagnosis.
3. Pathogenesis of Mycoplasma pneumoniae.
4. Macrolide resistance in Streptococcus pneumoniae.
5. Epidemiology and pathogenesis of melioidosis.
6. Laboratory diagnosis of syphilis.
7. Pathogenicity of Bordetella pertussis.
8. Laboratory diagnosis of Salmonella carriers.
9. Lyme disease.
10. Serodiagnosis of Brucellosis.

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M.D. Degree Examination – MAY-2019

[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. Enumerate the viruses that infect liver. Describe immunopathogenesis and laboratory diagnosis of Hepatitis C virus.
2. Enumerate the etiological agents, pathogenesis and laboratory diagnosis of Phaeohyphomycosis.
3. Chromomycosis.
4. Invasive aspergillosis.
5. Give an account of slow viral diseases.
6. Recent developments in Rabies vaccines.
7. Mucocutaneous candidiasis.
8. Zoonotic fungal infections.
9. Laboratory diagnosis of H1N1 infection.
10. Use of non cultivable methods in diagnosing fungal infection.

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Rajiv Gandhi University of Health Sciences

M.D. Degree Examination – MAY-2019

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

MICROBIOLOGY - PAPER – IV

Systematic Bacteriology Parasitology

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. Classify Protozoa. Describe pathogenesis and laboratory diagnosis of toxoplasmosis.
2. List the human microfilariae. Discus the pathogenesis and laboratory diagnosis of wuchereria bancrofti infection.
3. Life cycle of Taenia solium.
4. Cyclops.
5. Skin tests used in the detection of parasitic infection.
6. Concentration methods for ova and cysts.
7. Plasmodium falciparum.
8. Cryptosporidium parvum.
9. Human bilharziasis.
10. Trichenelle spiralis.

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Rajiv Gandhi University of Health Sciences

M.D. Degree Examination - 12-Nov-2019

[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. Define auto immunity. Write in detail about mechanisms for development of auto immunity and mention various auto immune diseases.
2. Define and classify immunity. Write differences between T cell and B cell and add a note on transfer factor.
3. Monoclonal antibodies.
4. Dark field microscope.
5. Heterophile agglutination.
6. Anaerobic culture methods.
7. Biomedical waste management.
8. Toxins.
9. Lectin pathway of complement activation.
10. Automated methods of culture.

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Rajiv Gandhi University of Health Sciences

M.D. Degree Examination - 14-Nov-2019

[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. Classify Atypical Mycobacteria. Describe the pathogenesis and laboratory diagnosis of Mycobacterium avium Intracellular in HIV positive individuals.

2. Describe the agents of bioterrorism. Discuss the pathogenesis and laboratory diagnosis of anthrax.

3. Campylobacter jejuni.

4. Laboratory diagnosis of leptospira icterohaemorrhagica.

5. Non-Gonococcal Urethritis.

6. DPT vaccine.

7. Halophilic vibrios.

8. Life cycle and pathogenesis of Chlamydia trachomatis.

9. Virulence factors of Bordetella pertussis.

10. Melioidosis.

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Rajiv Gandhi University of Health Sciences

M.D. Degree Examination – 16-Nov-2019

[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. Enumerate Hepatitis viruses. Describe the pathogenesis and laboratory diagnosis and role of Hepatitis B in (HIV) Human Immunodeficiency positive individuals.
2. What are dimorphic fungi? Discuss the pathogenesis and laboratory diagnosis of Blastomyces dermatitides.
3. Anti rabies vaccines.
4. Aspergillus fumigatus.
5. Infections caused by Candida species.
6. Laboratory diagnosis of pneumocystis jerovici.
7. Structure of adeno virus and its pathogenesis.
8. Viral haemorrhagic fevers.
9. H1N1 virus.
10. Coxsackie group “A” Virus.

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Rajiv Gandhi University of Health Sciences

MD Degree Examination – 18-Nov-2019

Time: Three Hours | Max. Marks: 100 Marks

MICROBIOLOGY - PAPER – IV
Systematic Bacteriology Parasitology
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. Discuss the pathogenesis and laboratory diagnosis of Hydatid cyst.
2. Discuss the immune response in parasitic diseases.
3. Concentration techniques of stool examination for ova and cyst.
4. Giardiasis.
5. Liver fluke.
6. Trichuris trichuria.
7. Onchocerca volvulus
8. Malaria vaccines
9. Cysticercus cellulosae.
10. Cultivation of Leishmania donovani.

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