

[KM 121]

Sub. Code : 2019

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

**Paper IV — MYCOLOGY AND APPLIED
MICROBIOLOGY**

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Describe the aetiological agents and laboratory diagnosis of a case of Urinary tract infection.

(2) Discuss in detail the molecular diagnostic methods used in clinical Microbiology.

II. Write short notes on : (10 × 5 = 50)

(a) Laboratory diagnosis of Dermatophytosis.

(b) Bacteriological examination of water.

(c) Milk borne diseases.

(d) Mycotic poisoning.

(e) Cryptococcosis.

(f) Sporotrichosis.

(g) Universal precautions.

(h) Immunisation schedule for children.

(i) Bioterrorism.

(j) Extended spectrum beta lactamases
(ESBLs).

[KO 121]

Sub. Code : 2018

II. Write Short notes on :

(10 × 5 = 50)

M.D. DEGREE EXAMINATION.

Branch IV – Microbiology

Paper IV — MYCOLOGY AND APPLIED
MICROBIOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(2 × 15 = 30)

(1) Enumerate Dimorphic fungi. Discuss Histoplasmosis with special emphasis on epidemiology and work done in India.

(2) Discuss the principles and applications of polymerase chain reaction and its modification in the clinical laboratory.

- (a) Rhinosporidiasis
- (b) Phage typing
- (c) Maintenance of Stock cultures
- (d) Standard Precautions
- (e) Mycotic keratitis
- (f) Prophylaxis of Hepatitis B infection
- (g) Cryptococcosis
- (h) Gene therapy
- (i) Madura foot
- (j) Significant Bacteruria.

September-2006

[KP 121]

Sub. Code : 2018

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper IV — MYCOLOGY AND APPLIED
MICROBIOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
 forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Describe the morphology, cultivation, pathogenicity and laboratory diagnosis of Candidal infections in immunocompromised patients. (20)

2. Describe the procedure to carry out the minimum inhibitory concentration and minimum bactericidal concentration. (15)

3. Discuss the duties and functions of infection control team. (15)

II. Short notes :

(6 × 5 = 30)

(a) Food poisoning

(b) *Trichosporon beigeli*

(c) Sporotrichosis

(d) Mycotoxins

(e) Immunoblotting techniques in diagnostic microbiology.

(f) Continuous quality assessment in the laboratory.

[KQ 118]

Sub. Code : 2019

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper IV — (Old/New/Revised Regulations)

MYCOLOGY AND APPLIED MICROBIOLOGY

(Candidates admitted from 1988-89 onwards)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Describe the aetiological agents and laboratory diagnosis of a case of urinary tract infection. (20)
2. Discuss the duties and functions of infection control team. (15)
3. Discuss about "BIO SAFETY" in microbiology laboratory. (15)

II. Short notes :

(6 × 5 = 30)

- (a) Mycotic keratitis.
- (b) Mycetoma.
- (c) Quality control in microbiology laboratory.
- (d) Uses of mice in microbiology.
- (e) Discuss the bacteriological examination of water.
- (f) Bactec system.

[KQ 119]

Sub. Code : 2018

II. Short notes :

(6 × 5 = 30)

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper IV — MYCOLOGY AND APPLIED
MICROBIOLOGY AND RECENT ADVANCES

(For candidates admitted from 2004–2005 onwards)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Describe the epidemiology, pathogenesis and laboratory diagnosis of penicilliosis marneffei. (20)
2. Describe the steps involved in the management of biomedical waste in a hospital. (15)
3. Discuss the application of nucleic acid based techniques in diagnostic microbiology. (15)

[KR 121]

Sub. Code : 2018

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper IV — (Old/New/Revised Regulations)

**MYCOLOGY, APPLIED MICROBIOLOGY AND
RECENT ADVANCES**

(Candidates admitted from 2004–05 onwards)

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Describe the morphology, pathogenesis and lab diagnosis of systemic dimorphic fungi. (20)

2. Describe the steps in investigation of an outbreak of infectious disease in a hospital. (15)

3. Describe the principle of different types of Polymerase Chain Reaction (PCR) and their use in Clinical Microbiology. (15)

II. Short notes :

(6 × 5 = 30)

(a) Pathogenicity islands.

(b) Modern vaccines.

(c) Gnotobiotic animals.

(d) *Candida albicans*.

(e) Rapid diagnostic tests in Microbiology.

(f) Role of bacteriophages in Microbiology.

MARCH 2008**[KS 120]****Sub. Code : 2017**

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper IV — MYCOLOGY AND APPLIED MICROBIOLOGY

(Common to all candidates)

Q.P. Code : 202017

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

- I. Long Essay : (2 × 20 = 40)
1. Discuss Nucleic acid based analytic methods for Microbial identification and characterization.
 2. Discuss in detail the opportunistic fungal infections in AIDS with Laboratory diagnosis and Treatment.
- II. Write Short note on: (10 × 6 = 60)
1. Endemic Mycoses.
 2. Demateaceous Fungal Infections.
 3. Antifungal Susceptibility Testing.
 4. Lysis Centrifugation Technique.
 5. IV Catheter associated bacteremia and Techniques for Laboratory Diagnosis.
 6. DNA Chips (Micro Arrays).
 7. Hospital Infection Control programmes.
 8. Agents of Bioterrorism
 9. Susceptibility Profiles requiring further scrutiny and evaluation in clinical Laboratories.
 10. Vaccines for Adults.
-