

Mansoura university  
Faculty of medicine  
Microbiology And Immunology Department

Time : 60 minutes  
Date: 22/4/2009

امتحان الميكروبيولوجيا والمناعة الطبية والبيولوجيا الجزيئية  
دكتوراه الجزء الأول تخصص الأمراض الصدرية دور ابريل ٢٠٠٩

▪ **All questions must be answered:-**

- 1- Recent methods in management pulmonary aspergellosis .
- 2- Microbiological and epidemiological aspects of Legionellois.
- 3- Immunological aspects of Mycobacterial infections.
- 4- Etiology and mechanisms of microbial resistance for chemotherapeutic agents.
- 5- Immunogenetic aspects of bronchogenic carcinoma.

*good luck*

**Answer all questions:**

## **Immunology**

### **Discuss:**

- 1- Type IV hypersensitivity reaction: Immunological mechanism, examples of clinical diseases & testing.
- 2- Immunological aspects of non gonococcal urethritis.
- 3- Antimicrobial peptides.

## **Medical Microbiology**

- 1- Microbiological aspect of syphilis & gonorrhoea.
- 2- Laboratory diagnosis of HIV & advances in treatment and prevention.
- 3- Diagnosis of endemic mycosis.

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**GOOD LUCK**

ملحوظة:

- الإجابة باللون الأزرق فقط والرصاص للرسم.
- ممنوع الإجابة من الجهة اليمنى إلى اليسرى من كراسة الإجابة.
- ممنوع وضع أي علامات أو عبارات باللغة العربية في الكراسة

Mansoura University  
Faculty of Medicine  
M.D.(Derma., Andr. & STDs)

Subsidiary  
24 / 12 / 2008  
Time allowed: 3 hr.

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**Answer all questions**

## **Mycology & Immunology**

**Discuss:**

- 1- Defensive mechanisms against superficial fungus infections.**
- 2- Cryptococcosis.**

**GOOD LUCK**

ملحوظة:

- الإجابة باللون الأزرق فقط والرصاص للرسم.
- ممنوع الإجابة من الجهة اليمنى إلى اليسرى من كراسة الإجابة.
- ممنوع وضع أي علامات أو عبارات باللغة العربية في الكراسة.
- لايمنح الطالب إلا كراسة واحدة للإجابة

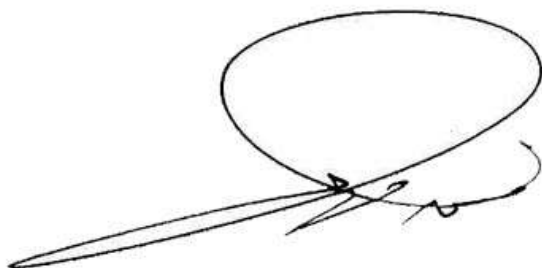
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**MD. CHEST Medicine**  
**1<sup>st</sup> part**  
**Microbiology & Immunology**

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**Give an account on :-**

- 1- **Discuss** the bacteriology of organisms causing atypical pneumonias .
- 2- **Discuss** cell mediated immunity in chest diseases .
- 3- A) **Discuss** drug resistance in T.B.  
B) Recent methods for diagnosis of T.B.
- 4- Infection control measures of an outbreak in ICU.



**Good Luck**

Mansoura university  
Faculty of medicine  
Microbiology And Immunology Department

Time : 180 minutes

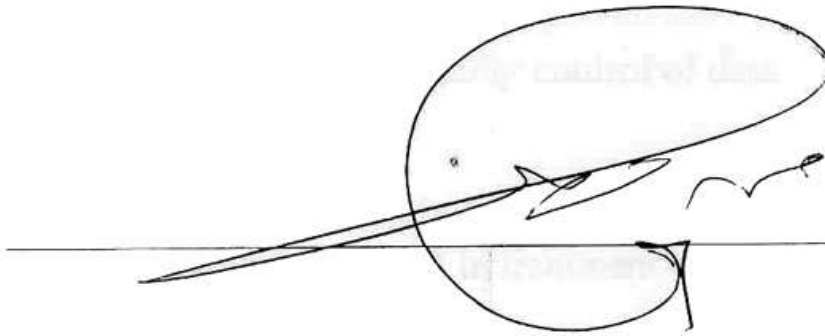
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امتحان دكتوراه الجزء الأول الميكروبيولوجيا والمناعة الطبية

(البيولوجيا الجزيئية) دور ابريل ٢٠٠٩

▪ **All questions must be answered:-**

- 1- Gene therapy
- 2- Cell cycle control .
- 3- DNA analysis.
- 4- Microarray and chip technology.
- 5- Candida albicans between commensally and pathogenic form (genetic bases).
- 6- Fox and their role in immune system.



*good luck*

**MD degree of microbiology and immunology**  
**1<sup>st</sup> paper**

▪ **All questions must be attempted:-**

**I - Bacteriology:-**

- 1- Discuss the applications of nanotechnology in prevention of bacterial infections. (10)
- 2- Characters of bacteria as a source of enzyme production, Mention also the characters of microbial enzymes. (15)
- 3- Antigenic structure and virulence factor of:- (15)
  - *Stenotrophomonas multophila*.
  - *Acintobacter*.
  - *Pseudomon*
  - *Serratia*
- 4- Uropathogenic E coli. (10)
- 5- Nontyphoidal salmonella. (10)

**II- Genetics:-**

- 6- Briefly comprise between Genetic map and physical map regarding advantages and methods. (10)
- 7- Discuss the epigenetics a (molecular bases). (10)

**III- Nosocomiology:-**

- 8- Discuss the hospital indoor air control policies. (10)
- 9- Discuss the infection control measures in:- (10)
  - HIV infections
  - T.B infections

— *good luck*

Mansoura university

Faculty of medicine

Microbiology And Immunology Department

Time : 3 hours

Date: 30/11/2008

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**MD degree of microbiology and immunology**  
**1<sup>st</sup> paper**

▪ **All questions must be attempted:-**

I- **General bacteriology:- (30)**

- A- Metabolic pathway of intracellular microorganisms .
- B- Heat shock proteins.
- C- Enzymes and microbial cell immobilization .

II- **Microbial genetics:- (15)**

- 1- Site specific gene repair strategies in gene therapy.

III- **Basic immunology:- (15)**

- A-The three signal model of B-cell activation.
- B- The role of Th17 in human organ transplantation.

IV- **General virology:- (15)**

- A-Analysis of viral genome and the universal system of Taxonomy and the concept of the virus species.

- B- Adverse effect of immune response to viral infection and mechanisms of viral evasion the host defensive mechanisms.

V- **General mycology:- (15).**

- 1- corum sensing in fungi.

VI- **Nosocomiology: (10)**

- 1-Notifiable diseases in infection control practices.
- 2- Planning of the operation room .

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*good luck*

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Time : 3 hours

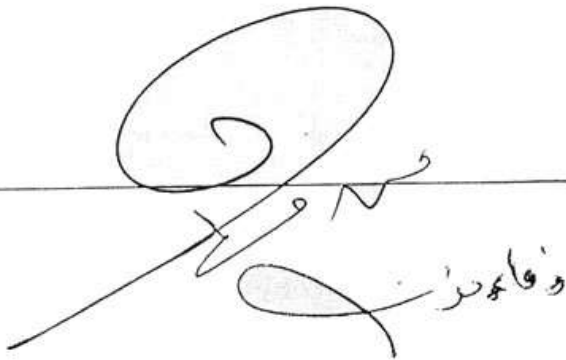
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امتحان الجزء الاول دكتوراه الميكروبيولوجيا والمناعة الطبية

البيولوجيا الجزيئية

▪ **All questions must be attempted:-**

- 1- (A) Discuss the applications of restriction enzyme analysis and RFLP in taxonomy of bacteria. (10)  
(B) Explain the methods of DNA analysis and how to detect DNA mutant. (10)
- 2- (A) discuss the engineered antibodies from transgenic mice.(10)  
(B) Discuss the role of alternative splicing in regulation of T cell activity. (10)
- 3- (A) Discuss the control of adenovirus gene expression. (10)  
(B) Discuss retro virus reverse transcription and its consequences. (10)
- 4- Molecular bases in fungal infection diagnosis, explaining in details the method of mitochondrial isolation. (20)
- 5- Discuss the role of bioinformatics in nosocomial infection control. (20)



*good luck*