

\*\*\*\*\*

**Preparatory Exam. for Ph. D. Anatomy  
( Electron Microscopy )**

Give an account on :

- 1- Instrumental bases of electron microscopes .
- 2- Principles of chemical fixation .
- 3- Buffers .
- 4- Sectioning problems .
- 5- Post staining .

Good Luck

**Doctorate Degree**  
**Of Histology & Cell Biology**  
**( Part I )**

**GENETICS**

**Write an account on each of the following :**

- 1- Replication of chromosome termini.
- 2- siRNA & miRNA.
- 3- Southern blotting.
- 4- DNA sequencing (Sanger method).
- 5- Familial Down syndrome.
- 6- a) Sources of genetic variation.  
b) DNA sequence polymorphism.

Mansoura University

May, 2009

Faculty of Medicine

Time allowed : 3 hours

---

**Doctorate Exam.**

**HISTOLOGY**

Answer the following questions :-

- 1- Concept of porto -systemic circulation .
- 2- Role of lymphocytes in immunity .
- 3- Give an account on :
  - a-Organized microtubules .
  - b-Connective tissue matrix .
  - c-Degeneration & regeneration of nerve fibers .



**Good Luck**

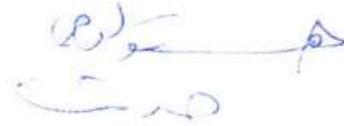
Mansoura University

May, 2009

Faculty of Medicine

Time allowed : 3 hours

---



**Doctorate Exam.**

**HISTOLOGY (2)**

**Answer the following questions :-**

1-Non parenchymal cells of the liver .

2-Discuss the 4 brain stem lemnisci .

3-Give an account :-

a- Epidermal melanin unit .

b- Olfactory pathway .

c- Sertoli cells & spermatogenesis .



**Good Luck**

Mansoura University

May, 2009

Faculty of Medicine

Time allowed : 3 hours

---

**Doctorate Exam.**

**HISTOLOGY**

Answer the following questions :-

- 1- **Concept of porto -systemic circulation .**
- 2- **Role of lymphocytes in immunity .**
- 3- **Give an account on :**
  - a-**Organized microtubules .**
  - b-**Connective tissue matrix .**
  - c-**Degeneration & regeneration of nerve fibers .**



**Good Luck**

Mansoura University  
Faculty of Medicine

*Handwritten signature*

November, 2008  
Time allowed : 1½ Hours

\*\*\*\*\*

**Preparatory Exam. for Ph. D. Histology  
( Electron Microscopy )**

Give an account on :

1. Post fixation.
2. Common Sectioning problems .
3. Staining of semi thin sections .

Good Luck

**M.D. Orthopaedic Surgery**  
**Paper IV (Anatomy & Pathology)**

**All questions to be attempted (12.5 degrees for each question):**

1. What is the anatomy and surgical importance of hip abductors ?
2. What is the anatomy of coracoid process and implications of anatomical variations in different types of shoulder surgery ?
3. What is the anatomy of deep palm space and its surgical importance ?
4. What is the anatomical details of supporting structures of the lateral side of the knee joint ?
5. What is the pathology of developmental dysplasia of the hip?
6. What is the bone pathology associated with end stage renal failure ?
7. What is the pathology of aneurysmal bone cyst ?
8. What is the pathology of chronic atraumatic massive rotator cuff tear ?

**Master Degree of Orthopedic**

**( First Part )**

**Histology**

***Answer the following questions :***

- 1- Give an account of the healing process of simple long bone fracture.
- 2- Describe the microscopic structure of joints.
- 3- Write a short account on:
  - a)Osteoblast.
  - b) Matrix vesicles.
  - c)Epiphyseal cartilage plate.

Good luck.

Mansoura University  
Faculty of Medicine

---

September. 2008  
Time allowed : 3 hours

## Master Degree of Urology

( First Part )

### Histology

- 1- Write an account on light and electron microscopic structure of the renal malpighian corpuscle with reference to its blood supply .
- 2- Describe the histological structure of the Sertoli cells and correlate it to their functions .

Good luck.