

Tanta University
Faculty of Medicine
Clinical Pathology Department
6/4/2016



MSc Clinical pathology Exam
Microbiology
Total Marks: 90
Time Allowed: 3 h.

All questions must be answered:

Q1- a- Define primary immune deficiency.
b- Mention the disorders resulted from defect in acquired immunity
& Discuss two of them

Q2- Give an account on immunoglobulins; classes, structures, characterizations and functions

Q3- Discuss the Causative organisms and laboratory diagnosis of

- a- Meningitis
- b- Atypical pneumonia
- c- Bacillary dysentery
- d- Fungal infection

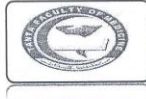
3-Give an account on the pathogenesis, laboratory diagnosis and prophylaxis of diseases caused by:

- a- Varicella zoster Virus
- b- Epstein Barr Virus (EBV)

Department Chairman
Prof. Dr. Mohammed Kamal Zahra

Prof Dr Ekhlas El sheikh
Prof Dr. Amany abo elenein

Prof Dr. Gehan Farouk



All questions must be answered:

Q1	Mention causes of persistent lymphocytosis and its differential diagnosis.	15
Q2	Discuss lab diagnosis and differential diagnosis of hemophilia A.	15
Q3	Give an account on value of immunophenotyping in diagnosis of acute leukemia.	15
Q4	Discuss pathophysiology and laboratory diagnosis of G6PD anaemia.	10
Q5	Give an account on diagnosis and differential diagnosis of megaloblastic anemia.	15
Q6	Discuss immediate and delayed hemolytic transfusion reaction.	15
Q7	Give an account on recurrent cytogenetic abnormalities in AML.	15

أعانت حيا لآلف

Prof Dr Aisha Abd el Lateif

سوف

Prof Dr Soheir Abd el Haleem

آلف

Prof Dr Jehan Elsharanouby

آلف

Prof Dr Said Hammad

Chairman of Department

Prof Dr Mohamed Kamal Zahra




Tanta University
Faculty of Medicine
Clinical Pathology Department
5/4/ 2016



MSc Ped Exam
Clinical Pathology
Total Marks: 20 marks
Time Allowed: 1 h

All questions must be answered:

- Q1- *Tabulate the differential diagnosis of hypochromic microcytic anaemia.* (2.5 marks)
Q2- *Enumerate causes of monocytosis.* (2.5 marks)
Q3- *Mention screening tests for a case with bleeding tendency.* (2.5 marks)
Q4- *Mention laboratory findings in ALL patients* (2.5 marks)
Q5- *Write on clinical significance of alkaline phosphatase determination.* (2.5 marks)
Q6- *Give an account on urine examination in acute glomeronephritis.* (2.5 marks)
Q7- *Mention CSF findings in bacterial meningitis* (2.5 marks)
Q8- *Give an account on lab diagnosis of hypothyroidism* (2.5 marks)

Prof Dr, Nagwa Mansour 
Prof Dr. Said Abdou 
Prof DR, Heba Morad 

Department Chairman
Prof. Dr. Mohammed Kamal Zahra

Good Luck

Microbiology & Immunology

1st part Master/Degree in: Clinical pathology (old system)

Date: 18/4/2016

Time Allowed: 3 hours

Total Assessment Marks: 100

All questions to be answered



**Tanta University
Faculty of Medicine**

**Department of Microbiology
and Immunology**

1) Give short account on the following (6 marks each) :

- a) Functions of bacterial capsule and mention 3 different capsular polysaccharide vaccines
- b) Different genes carried on plasmids and explain why plasmid mediated antibiotic resistance is of great clinical importance.
- c) Classification and spectrum of Quinolones and mention the mechanism of action of the 1st generation

2) Discuss the following (5 marks each) :

- a) Principle for 2 different techniques using Fluorescence –labeled antibodies
- b) T- helper cells as regard their activation and function
- c) Immunologic mechanism of drug induced hemolytic anemia
- d) Approaches for cancer immunotherapy
- e) Types and significance of isoantigens

3) Mention laboratory diagnosis and treatment for (10 marks) :

- a) Leprosy
- b) 2^{ry} stage of Syphilis
- c) Gas gangrene
- d) Septicemia caused by MRSA

4) Enumerate the different clinical conditions caused by the following organisms and mention their laboratory diagnosis (10 marks):

- a) *H. pylori*
- b) *Bacteroides fragilis*
- c) *Mycoplasma*
- d) *H. influenza*



5)As regard nosocomial infection enumerate the following (3 marks) :

- a) Difference between air born and droplet infection
- b) Types of patient isolation in control of nosocomial infection
- c) Goals of antibiotic policy in hospitals

6)A patient in a tropical area suffered from mild itching and irritation in his eyes followed by blurring of vision . Eye examination revealed follicles in the upper palpebral conjunctiva.Conjunctival smear show basophilic intracytoplasmic inclusions . Mention the following :

- a) What is this clinical condition and the causative organism **1mark**
- b) What is the treatment of this case **1 mark**
- c) Mention 2 other species of bacteria that can infect conjunctiva and discuss the laboratory diagnosis of one of them affecting neonates **3 marks**

7)Give short account on the following :

- a) Mycotoxicosis **4 marks**
- b) Fungi that cause opportunistic mycosis and discuss one of them that affects mainly CNS **8 marks**

8) Discuss the following :

- a) Application of viral mutants and reassortants in vaccine preparation **4 marks**
- b) Chemoprophylaxis in viral infections **3 marks**
- c) Laboratory diagnosis and treatment of : RSV - CMV **6 marks**
- d) As regard Picornaviruses : Copmare between Enteroviruses and Rhinoviruses and give short account on a zoonotic one of them **4 marks**

Good luck oral exam: 20/4/2016 practical exam : 23/4/2016



Final Semester Examination For Master Degree of
Clinical Pathology
Course Title: Medical Parasitology
Date:13 -4-2016
Time Allowed: 2 hours
Total Assessment Marks: 100 MARKS



Tanta University
Faculty of Medicine
Department of
Parasitology

The following questions must be answered: (Draw whenever possible)

- I- Enumerate parasites that can cause high eosinophilia. Discuss the role of eosinophils as a defense mechanism against parasitic infections. (15 marks)
- II- How can you confirm the diagnosis of the following parasitological cases:- (15 marks)
- 1) An adult female presented with cervical and axillary lymphadenopathy and flu like illness. These manifestations appeared after acquisition a cat in her house.
 - 2) A Japanese sailor complained of low grade fever, chronic cough with blood-stained sputum.
 - 3) An AIDS patient complaining of frequent diarrhea, fever, malaise, weight loss and edema of lower limbs. Trichrome staining of stool sample revealed the presence of spores.

III-Give an account on: (15 marks)

- 1) Direct laboratory diagnosis of *strongyloidiasis*.
- 2) Myiasis (types and draw the diagnostic stages of three of them).
- 3) Life cycle of *Capillaria philippenensis*.

IV- Give the reason(s) of: (15 marks)

- 1) Serological tests are more sensitive than stool examination in the diagnosis of some cases of fascioliasis.
- 2) Reversed A/G ratio in Kala-azar.
- 3) Appearance of trophozoite and schizont stages in blood film in some cases of *Plasmodium falciparum* infection.

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Chairman of Department
Prof. Dr.

V- Compare between the followings:

{15 marks}

- 1) Eggs of Hookworms and *Trichostrongylus*.
- 2) *Blastocystis hominis* and *Entamoeba histolytica* trophozoites
- 3) Oocyst of *Sarcocystis bovihominis* and *Crptosporidium parvum*.
- 4) Microfilaria of *Loa loa* and *Onchocerca volvulus*.
- 5) *Naegleria* and *Acanthamoeba* (clinical aspect and diagnosis).

VI- Menion the indication of the usage of :-

{15 marks}

- 1) Fine-needle aspiration biopsy in the diagnosis of certain parasitic diseases.
- 2) Acridine orange quantitative buffy coat technique.
- 3) Doudenale capsule test.
- 4) Zinc sulphate 33% in floatation technique.
- 5) Nested PCR in Parasitology.

VII- Choose the correct answer(s):

{10 marks}

- 1) Intradermal test in case of oriental sore:
 - a) Is positive in 95% of cases.
 - b) Is negative in 95% of cases.
 - c) Is negative during infection and positive after treatment.
 - d) The antigen used is prepared from amastigotes.
- 2) Induced *falciparum* malaria (due to blood transfusion) the infective stages are:-
 - a) Ring and gametocyte.
 - b) Trophozoit and schizont.
 - c) Ring stage.
 - d) Sporozoit.
- 3) Technicians are susceptible to infection by the following parasites in the laboratory, **EXCEPT**:
 - a) *Heterophyes heterophyes*.
 - b) *Entamoeba histolytica*.
 - c) *Strongyloides stercoralis*.
 - d) *Toxoplasma gondii*.
- 4) Charcoat Leyden crystals may be detected in the stool of patients infected with:-
 - a) *Giardia lamblia*.
 - b) *Trichostrongylus colubriformis*.
 - c) *Capillaria philippinensis*.
 - d) *Isospora belli*.
- 5) The following parasites are transmitted by blood transfusion:-
 - a) *Wuchereria bancrofti*.
 - b) *Opisthorchis felineus*.
 - c) *Schistosoma mansoni*.
 - d) None of the above.

6) Autoinfection is a mode of infection in the following parasites:

- a) *Capillaria philippinensis*.
b) *Leishmania tropica*.
c) *Strongyloides stercoralis*.
d) All of the above.

7) Liver biopsies may be indicated in the following parasitic diseases EXCEPT:

- a) *Schistosomiasis japonicum*.
b) Babesiosis.
c) Malaria
d) Cysticercosis.

8) CSF examination is used for the diagnosis of the following parasitic diseases EXCEPT :

- a) Kala azar
b) Sleeping sickness.
c) PAME
d) *Wuchereria bancrofti* infection.

9) Urine specimens are usually examined for the following EXCEPT:

- a) *Schistosoma haematobium* eggs.
b) *Trichomonas vaginalis*.
c) *Paragonimus westermani* eggs.
d) Microfilariae of *Wuchereria bancrofti*.

10) Loffler's syndrome is associated with the following parasitic infections EXCEPT:-

- a) *Ascaris lumbricoides*
b) *Trichuris trichiura*
c) *Necator americanus*
d) *Ancylostoma duodenale*.

Best Wishes

سيتم تحديد مواعيد الإمتحانات الشفوى و العملى بمعرفة القسم

Chairman of Department

Prof. Dr.

Sany Elsay

7. All the following may be true for toxocariasis EXCEPT

- a. Diminution of vision
- b. Hypergammaglobulinaemia
- c. Thrombocytopenia
- d. Hepatomegaly

8. The specific test for the diagnosis of trichinellosis is

- a. Assessment of muscle enzymes
- b. Assessment of total IgE
- c. Muscle biopsy
- d. Complete blood count

9. Among the following, which test is suggestive of visceral leishmaniasis?

- a. Sputum examination
- b. Estimation of serum proteins
- c. Estimation of cardiac enzymes
- d. Estimation of muscle enzymes

10. Haemolytic anaemia is a feature of infection with

- a. *Plasmodium* spp.
- b. *Babesia* spp.
- c. *Trypanosoma rhodesiense*
- d. All the above

Chairman of Department
Prof. Dr. Samy El Kowrany



11. The size range for immature cyst of *Isospora belli* is

- a. $(31 \times 9 - 37 \times 12) \mu\text{m}$
- b. $(4 - 6) \mu\text{m}$
- c. $(8 - 10) \mu\text{m}$
- d. $(62 \times 12 - 83 \times 15) \mu\text{m}$

12. Microfilaria of *Loa loa* can be found in

- a. Skin at 10 A.M. - 2 P.M.
- b. Blood at 10 A.M. - 2 P.M.
- c. Skin at 10 P.M. - 2 A.M.
- d. Blood at 10 P.M. - 2 A.M.

13. Concerning *Toxoplasma gondii*, all of the following are true EXCEPT

- a. Vertical transmission can occur
- b. The infection is diagnosed by serological tests
- c. Human infection occurs when sarcocysts are ingested in undercooked meat
- d. Domestic cat is the definitive host

14. The following combination of parasites is found in Egypt

- a. *Heterophyes heterophyes*, *Plasmodium ovale*, *Paragonimus westermani*
- b. *Schistosoma haematobium*, *Diphyllobothrium latum*, *Giardia lamblia*
- c. *Schistosoma mansoni*, *Ascaris lumbricoides*, *Capillaria philippinensis*
- d. *Entamoeba histolytica*, *Brugia malayi*, *Heterophyes heterophyes*

15. The buffy coat technique is useful for the diagnosis of the following parasites EXCEPT

- a. *Wuchereria bancrofti*
- b. *Trypanosoma gambiense*
- c. *Sarcocystis lendemani*
- d. *Leishmania infantum*

Good luck

يراجع القسم لتحديد موعد الامتحانات الشفوية و العملية

Final Semester Examination For Master Degree of
Clinical Pathology
Course Title: Medical Parasitology
Date: 3-4-2016
Time Allowed: 3 hours
Total Assessment Marks: 90 MARKS



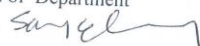
Tanta University
Faculty of Medicine
Department of
Parasitology

The following questions must be answered: (Draw whenever possible)

- I- Give an account on stool artifacts that can be confused with some parasitic stages. {10 marks}
- II- How can you confirm the diagnosis of the following parasitological cases:- {15 marks}
- 1) A 25-year-old female with contact lens presented to an ophthalmologist complaining of blurred vision. Corneal ulcer and keratitis were detected by clinical examination.
 - 2) A returned traveller from Latin America presenting with itchy skin lesion after walking barefoot on the beach. Clinical examination revealed the presence of erythematous, elevated, vesicular and serpiginous tracks on the feet and abdomen.
 - 3) A female adolescent resident in desert area, complaining of single facial ulcer with sharp edge and surrounding induration.
- III- **Give an account on:** {20 marks}
- 1) Real-time PCR (principle and applications in Parasitology).
 - 2) Laboratory diagnosis of bancroftian filariasis.
 - 3) Scabies (clinical aspect and draw the diagnostic stage(s)).
 - 4) Life cycle of *Paragonimus westermani*.
- IV- **Give the reason(s) of:** {15 marks}
- 1) Stool culture may be indicated in the diagnosis of some parasitic diseases.
 - 2) High levels of direct bilirubin in parasitic infection.
 - 3) Negative IgG and IgM for toxoplasmosis are considered high risk in pregnant women.

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Chairman of Department

Prof. Dr. 

V- Compare between the followings:

{10 marks}

- 1) Eggs of *Taenia* and *Hymenolepis nana*.
- 2) Morphology of *Plasmodium falciparum* and *Babesia* in a blood film.
- 3) Oocyst of *Isospora belli* and *Cyclospora cayentanensis*.
- 4) Xenodiagnosis and animal inoculation method for diagnosis of parasitic diseases.
- 5) Unilocular and multilocular hydatid cyst.

VI- Menion the indication of the usage of :-

{10 marks}

- 1) Giemsa stain in thick blood film.
- 2) Zeihl-Neelsen stain in stool examination.
- 3) NIH swab in the diagnosis of some parasitic infection.
- 4) Immunochromatographic card test.
- 5) Membrane filtration technique.

VII- Choose the correct answer:

{10 marks}

- 1) Autoinfection is a mode of infection in the following parasites:
a) *Capillaria philippinensis*.
b) *Leishmania tropica*.
c) *Strongyloides stercoralis*.
d) All of the above.
- 2) The following parasitic infection may be diagnosed by sputum examination EXCEPT:
a) *Ascariasis*.
b) *Metagonimiasis*.
c) *Strongyloidiasis*.
d) *Paragonimiasis*.
- 3) Four-nucleated cycts are diagnostic for:
a) *Enteromonas hominis*.
b) *Trichomonas tenax*.
c) *Chilomastic mesinili*.
d) *Retortamonas hominis*.
- 4) Sparganosis:
a) Is caused by pleocercoid larvae *Diphyllbothrium mansonoides*.
b) Has snails as the first intermediate hosts.
c) Has snakes, frogs and birds as 2nd intermediate hosts.
d) Has the infective L2 stage in fish.
- 5) Hyperbilirubinaemia may be detected in infection with:
a) *Trichuris trichiura*.
b) *Fasciola gigantica*.
c) *Heterophyes heterophyes*.
d) *Hymenolepis nana*.
- 6) Eggs of the following parasites resemble those of *Clonorchis sinensis* EXCEPT:
a) *Metagonimus yokogawai*.
b) *Opisthorchis viverrani*.
c) *Paragonimus westermani*.
d) *Heterophyes heterophyes*.

Prof. Sanjay

7) Hypoalbuminaemia may develop as a sequence in the infection with the following **EXCEPT**:

- a) Intestinal capillariasis.
- b) Giardiasis.
- c) Cutaneous Leishmaniasis
- d) Cryptosporidiosis.

8) Pernicious anaemia occurs in case of:

- a) Ancylostomiasis
- b) Babesiosis.
- c) Schistosomiasis
- d) Trichuriasis.

9) Occult filariasis can be diagnosed by:

- a) Hepatomegaly.
- b) High Eosinophilia.
- c) Hypergammaglobulinaemia.
- d) All of the above.

10) High eosinophilia is commonly present in the following parasitic infections **EXCEPT:-**

- a) Fascioliasis
- b) Trichinosis
- c) Ancylostomiasis
- d) Toxocariasis

Best Wishes

سيتم تحديد مواعيد الإمتحانات الشفوى و العملى بمعرفة القسم

Chairman of Department

Prof. Dr. 