

Examination for Master Degree in: Biochemistry
Course title: Medical Microbiology & Immunology
Date: 18 /2 / 2018
Term: February 2018
Time allowed: 3 hours
Total assessment marks: 90 marks



Tanta University
Faculty of Medicine
Microbiology Department

All questions to be answered:

1-Enumerate the causative agents for the following infections. (10 marks)

- a- Sexually transmitted diseases. (2.5 marks)
- b- Milk born diseases. (2.5 marks)
- c- Bacteria meningitis. (2.5 marks)
- d- Food poisoning. (2.5 marks)

2--Give account on: (10 marks)

- a-*Yersinia enterocolitica*. (5 marks)
- b-*Haemophylis ducreyi*. (5 marks)

3-Discuss mode of infection, clinical manifestation, laboratory diagnosis and treatment of Brucellosis. (10 marks)

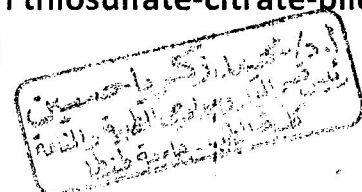
4-Describe the disease caused by the following organisms, its clinical picture, laboratory diagnosis and proper treatment. (10 marks)

- a-*Helicobacter pylori* (5 marks)
- b-*Bordetella pertussis* (5 marks)

5-Regarding to *Chlamydia trachomatis* infections answer the following questions (5 marks)

- a- How does *C. trachomatis* enter a target cell? (2.5 mark)
- b-What are the two stages of the *C. trachomatis* life cycle? (2.5 mark)

6-A 50- year-old businessman develops intense diarrhea 24 hours after leaving India. The stools are thin and watery, containing flakes of mucous, no pus or blood cells. Stool culture reveals rapid growth at the surface of alkaline peptone water. Subculture the growth on thiosulfate-citrate-bile sucrose agar produce yellow colonies.(10 Marks)



a-What is the causative agent for this infection? (1 Marks)

b- Describe the pathogenesis (1 Marks)

c-How could you diagnose this infection? (4 Marks)

d- What are your preventive measures to control this infection? (2 Marks)

e- What is the proper treatment for this case? (2 Marks)

7-16 year old female admitted to the hospital with fever ,vomiting and loose stools. She was seen by her doctor who noted that she was hypotensive (BP 76/48 mmHg) with a heart rate of 120 beats/min and a temperature of 38C. She had an erythematous rash, which was most prominent on her trunk. The patient was given intravenous fluids and IV antibiotics and transported to the Intensive Care Unit. Laboratory studies indicated, Gram positive cocci , catalase positive , elevated liver enzymes, increased creatinine and blood urea nitrogen, and WBC count of 14,100 mm³ with 78% neutrophils and 18% band forms. The patient had begun her menstrual period 4 days before she became ill. (10marks)

a-What did this patient suffer from? (1 marks)

b-What is the causative agent ? (1 marks)

c-How to diagnose this condition? (5 marks)

d-What is the proper treatment of this case? (3 marks)

8- Give account on *hepatitis B virus (HBV)* markers and its significance (10 marks)

9-Discuss Recent Rabies vaccines (5 marks)

10- Give account on infection caused by *Cryptococcus neoformans*, its pathogenesis, laboratory diagnosis and treatment (10 marks)

Good luck

Oral exam: Monday 5/3/2018

Practical exams: starts Monday 5/3/2018

At 9 am at Microbiology & Immunology Department

