Examination for Master Degree in Microbiology and Immunology:
Course Title: Microbiology and Immunology
Date: 7 / 11 / 2020
Term: paper II
Time Allowed: 3 hours
Total Assessment Marks: 100 marks
Number of the questions: 8

Tanta University
Faculty of Medicine
Department of Microbiology & Immunology

All the questions should be answered:

Q1: Explain the medical importance of coagulase-negative *Staphylococci.* (10 marks)

Q2: Discuss the different mechanisms of diarrhea caused by diarrheogenic strains of *E. coli.* (10 marks)

Q3: Compare between latent and active TB disease, and mention drugs used for treating each of them and their duration of treatment. (10 marks)

Q4: How to laboratory diagnose brucellosis, and how to treat it? (10 marks)

Q5: Describe Weil's disease, and mention its causative organism and modes of infection? (10 marks)

Q6: Case study: (10 marks)

A 58-year old farmer presented in the emergency room with headache, irritability, generalized muscle pain and uncontrollable back spasms. In his history, the farmer said that he injured himself about 10 days earlier, puncturing his left foot with a nail from an old animal house. The patient's back appears to have very tight contractions and spasms. The patient is in obvious agonizing pain. The wound was sampled for microscopic examination and culture.

a) What is your most probable diagnosis here?

b) How could this have been prevented?

c) What is the proper treatment of this case?

Q7: Mention the role of the infection control team in the hospitals. (10 marks)

Q8: Give an account on:

- *Cryptococcus neoformans.* (10 marks)
- Hepatitis D virus. (10 marks)
- Pathogenesis of polio virus. (10 marks)

Good Luck

Head of Department
Prof. Mohamed Zakaria Hussein