

Examination for Diploma Degree in: Tropical Medicine  
Course title: Medical Microbiology & Immunology  
Date: 1 /4 / 2019  
Term: April 2019  
Time allowed: 1.5 hour  
Total assessment marks: 25 marks



Tanta University  
Faculty of Medicine  
Microbiology Department

**All Questions Are To Be Answered:**

**(5 marks each)**

- 1- Discuss bacterial virulence factors.
- 2- Discuss types and mechanism of toxic immune complex syndrome.
- 3- Mention the **causative agents** and **mode of transmission** of the following diseases:
  - a- Malta fever (1 mark)
  - b- **Epidemic cerebrospinal meningitis** (1 mark)
  - c- **Botulism** (1 mark)
  - d- Glandular fever (1 mark)
  - e- **Whooping cough.** (1 mark)
- 4- Discuss **mode of infection, diagnosis and treatment of Hepatitis B virus (HBV).**
- 5- **A 7 years old child presented with spasm in the jaw muscles. His mother said that he was injured with a rusted nail 6 days ago. His condition shows worsening with severe muscle pain and breathing difficulties.** (1 mark each)
  1. What is your diagnosis for this case?
  2. What is the organism responsible of this disease?
  3. What is the main virulence factor?
  4. What is the first line of treatment in this case?
  5. How can you prevent such disease?

Head of Department  
Prof. Mohamed Zakaria

Oral & practical exams at 10 am in Microbiology & Immunology Department

GOOD LUCK