



**Tanta University
Faculty of Medicine
Dept. Of Public Health & Community Medicine**

**Diploma in Public Health, Preventive and Social Medicine
End Semester Exam. (Environmental Sanitation). Time Allowed: 3 Hours
All questions Should be attempted**

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I-Discuss the following:-

- 1- Health-related effects of air pollution. (20)
 - 2- Types and principles of waste management in health facilities.(20)
 - 3- Characteristics of potable water. (10)
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II- Enumerate:-

- 1- Impacts of urbanization on health. (15)
 - 2- Types and mechanisms of action of potential environmental carcinogens. (15)
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III-Outline a frame for disaster management plan.(20)

Good Luck

**Terminal examination in environmental health for the first part of
~~Diploma~~ ^{Master} degree in public health, February 2017**

1-Please give short account on: (40%)

- a) Positive and negative public health effects of urbanization (10 %)**
- b) disaster management plan (10 %)**
- c) health hazards of air pollution (10 %)**
- d) types of wastes resulting from human activities (10 %)**

2-Describe the framework for the risk management process (30 %)

3- Discuss environmental carcinogens (types, mechanism of actions and give examples) (30 %)

Good luck

Examination of Microbiology and Immunology
For diploma degree of public health

Date: 12-2-2017

Total marks: 45

i. MCQ (22.5 Marks)

1. Each of the following statements concerning the surface structures of bacteria is correct EXCEPT:

- a) Pili mediate the interaction of bacterial mucosal epithelium.
- b) Polysaccharide capsules related to phagocytosis.
- c) Both gram negative rods and cocci have endotoxin in their wall.
- d) Bacterial flagella are non antigenic.

2. The cell wall of gram-negative bacteria may contribute to the development of septic shock. Identify the component which is most associated with the induction of septic shock.

- a) Capsular protein
- b) Endotoxin
- c) Peptidoglycan
- d) Teichoic acid

3. All are characteristics of bacterial cells EXCEPT:

- a) do not have a membrane enclosing the nucleus
- b) peptidoglycan is always found in the cell wall
- c) have a haploid single chromosome
- d) have sexual growth cycle
- e) sterols are only rarely present

4. All the followings are cytokines EXCEPT:

- a) lymphokines
- b) interferon
- c) interleukin
- d) b+c
- e) hatpen

5. During complement activation the membrane attack complex is:

- a) C4bC2a
- b) C5bC6,7,8,9
- c) C3, C4,C5
- d) Properdin

6. Which category of hypersensitivity best describes hemolytic disease of the newborn caused by Rh incompatibility:

- a) Atopic or anaphylactic
- b) Cytotoxic
- c) Immune complex
- d) Delayed hypersensitivity

7. Which category of hypersensitivity is arthus reaction:

- a) Atopic
- b) Cytotoxic
- c) Delayed
- d) Immune complex

8. A child injected with penicillin and goes into shock within minutes with manifestation of respiratory failure. This most likely due to:

- a) Serum sickness.
- b) Systemic anaphylaxis.
- c) An arthus reaction.
- d) Cytotoxic hypersensitivity.

9. Rejection reaction that is caused by the presence of preformed antibodies:

- a) Acute
- b) Hyperacute
- c) Chronic
- d) Accelerated

10. Each concerning immunological tolerance is correct except:

- a) Tolerance is not antigen specific
- b) Tolerance is more easily induced in T cells than B cells
- c) Tolerance is more easily induced in neonates than adults

11. Autoimmunity means:

- a) increased resistance to all infections
- b) body can recognize any foreign Ag
- c) immune system can tolerate its own tissue Ag
- d) immune reactions develop to host Ag
- e) all of the above

12. Which of the following is characteristic of Mycobacterium tuberculosis?

- a) Intracellular growth in the macrophages.
- b) Acid-fast positive.
- c) Transmitted primarily by aerosols.
- d) Infections treated with streptomycin, isoniazid and rifampicin.
- e) All of the above.

13. Shigella is classified according to:

- a) Biochemical reaction.
- b) Motility.
- c) H-antigen.
- d) All of the above.

14. Salmonella causing food poisoning:

- a) Salmonella typhi.
- b) Salmonella typhimurium.
- c) Salmonella para-typhi A.
- d) Salmonella cholerasuis.

15. Neuorotoxic Clostridia include:

- a) Clostridium perfringens.
- b) Clostridium botulinum.
- c) Clostridium tetani.
- d) b,c.
- e) All of the above

ii. Give an account on: (9marks)

- A. Bacterial cell wall
- B. TypeII hypersensitivity reaction
- C. Aspergillosis.

iii. Enumerate organisms responsible for bioterrorism and discuss one of them in details. (6.5marks)

iv. Enumerate DNA viruses and discuss one of them in details. (7marks)

