

- 6- Which toxin contains LPS and triggers fever?
 A) Endotoxin B) Exotoxin C) Both D) None
- 7- Which bacterium can be the source of a neurotoxin that belongs to the AB toxin family and cause a flaccid paralysis?
 A) *C. diphtheriae* B) *C. botulinum* C) *C. tetani* D) *V. cholerae*
- 8- The molecular basis for the effect of cholera toxin on duodenal mucosal cells is .
 A) Activation of adenylate cyclase
 B) Increased activity of potassium pumps
 C) Increased generation of cAMP
 D) Ribosylation of GTP binding protein
- 9- Toxemia is
 A) Toxins in the host's bloodstream
 B) Capacity of microorganisms to produce toxins
 C) Inactivated toxin used in a vaccine
 D) Antibodies against a specific toxin
- 10- Any inanimate object capable of being an intermediate in the indirect transmission of an infectious agent
 A) Carrier B) Fomites C) Reservoir of infection D) Pandemic disease

Forth Question: [15 Degrees]

(A) Complete the following (10 Marks):

- 1-Molecular determinants of pathogenicity include,,and.....
- 2- Bacteria typically employ proteins known asto attach to host tissues, which usually are located on ends of
- 3- Botulinum toxin affects and once across the gut, it is carried in the blood to.....
- 4-.....Toxin produces irreversible muscle contraction.
- 5-Toxin blocks muscle contraction.


(B) Mention the mode of action of the following (5 Marks):

- 1-Pertussis toxin.
- 2-Exotoxins.
- 3-Cholera toxin.
- 4-EHEC toxin.
- 5-Endotoxins in the bloodstream.

With our Best Wishes
 Examiners

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Tanta University Faculty of Science Chemistry Department	Industrial chemistry		
	First Term	Course code: CH4155	
	January 2014	Total Assessment Marks:50	
Double major fourth year section		Time allowed: 2Hours	Date : 8/1/2014

(1)- Discuss one of the following

(5 marks)

- a) The manufacturing process of phosphoric acid from thermal process
- b) The four raw materials of industrial chemistry

(2)- Select the right answer of the following

(6 marks)

- a) The raw materials of manufacturing ammonia are
 - 1- Air, water and oxygen.
 - 2- Air, water and, hydrocarbons.
 - 3- Air, nitrogen and, hydrocarbons
- b) The raw material of hydrogen production from Partial oxidation process is
 - 1- cyclohexane
 - 2- methane
 - 3- sulphoric acid
- c) The raw material of manufacture of white phosphorus is
 - 1- calcium phosphate
 - 2- barium phosphate
 - 3- Copper phosphate

(3)- Correct the following sentences

(6 marks)

- a) Hydrazine use as indicator
- b) In Shift Conversion, the carbon monoxide is converted to carbon
- c) White phosphorus use industrial strick plate of matchbox

(4)- complete the following sentences

(8marks)

- a) White phosphorus is chemically active because.....
- b) The equation of hydrogen manufacture from cook is.....
- c) The application of phosphoric acid is.....
- d) The reaction in primary reforming for manufacture of ammonia is.....

(5)- Explain briefly the synthesis of the following:

(25 marks)

- a- Poly vinyl chloride from ethane
 - b- Poly styrene from benzene
 - c- Cellulose acetate from methanol
 - d- Rubber from crude oil
- (6)** a- Give a brief classification for the types of detergents with examples.
- b- The structure of the liquid detergent shampoo, soap and non ionic detergent
 - c- Preparation of synthetic detergents
 - d- Powder detergent manufacture.

