

- 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

D R. Saida Amer
DR. Sameh samir

ل/م/س

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)

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

(2)- Select the right answer of the following

(6 marks)

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

(3)- Correct the following sentences

(6 marks)

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

(4)- complete the following sentences

(8marks)

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

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

(25 marks)

- Poly vinyl chloride from ethane
 - Poly styrene from benzene
 - Cellulose acetate from methanol
 - 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.

