

### Correction Exam of biochemistry (Ordinary Session)

#### Exercise 01: 4.5 pts

Nam of the structures..... (0,5×4)

**A:** Oxime **B:** gluconic acid **C:** 2,3,4,6, tetra O-methyl –D- glucopuranose **D:** a, D galactopyranose

#### Part two

-Diholoside is **Sucrose**..... (1pts)

-2- The nature of the connection between the 2 simple oses is (1, 2) liaison oside-  
osid.....(0,5pts)

3. Diholoside is **Not reducing** (0,5pts) because the bond between the two oses is of  
the **Oside-oside** type ..... (0,5pts).

#### Exercise: 02 8pts

Is  1g Ag

3. KOH  PM.....(0,5pts)

PM =300..... (1pts)

PM (FA) = 87,33 .....(1pts)

n=3, 95.....4 (0,5pts) donc name of FA is **Butyrique acid** (0,5pts)

- Molecule A calsss **Glycérophospholipides/ Phosphatidylcholine..** (0,5pts)

- The major constituents of this molecule; .....(4×0,25)pts

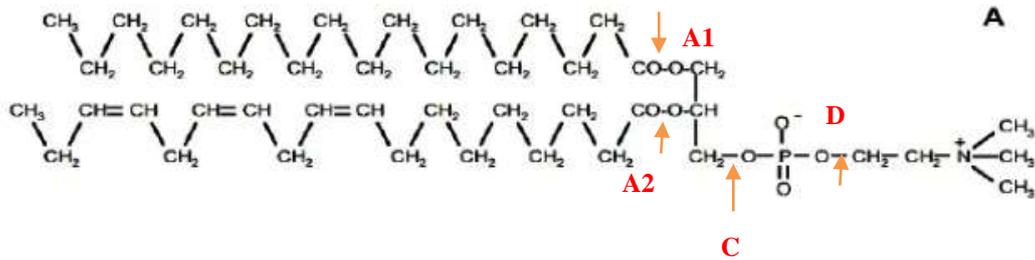
- **Stéarique acid**
- **Linoléinique acid**
- **phosphoric acid (H<sub>3</sub>PO<sub>4</sub>)**
- **choline**

The molecule A is amphiphilic molecules because they have 2 poles:(0,5×2)pts

- one **hydrophobic** due to AG;

- The other **hydrophilic** due to the phosphoric ester.

The 4 specific phospholipases A1, A2, C and D in molecule A ..... (4×0, 25) pts



- They are **amphoteric** molecules because they have both:..... (0,5×2 pts)
- an **acid function** provided by **H3PO4**;
- a **basic function** provided by **AA choline**.

**Exercise 3: 4pts**

The sequence of this peptide is;.....(1×4pts)

NH<sub>2</sub> .Try-Lys-Asp-Ala-COOH or NH<sub>2</sub> .Try- Arg-Asp-Ala-COOH

**Exercise 4: 3,5pts**

Calculate the **Km** of the **enzyme** for its substrate.

**A.Km= -1/Km = 1/1= 1 (mol/l).....(1pts)**

**B.Calculate the Vmax. the enzyme**

Vmax= 1/Vmax = 1/0, 1= 10(mol. min<sup>-1</sup>.l).....(1pts)

**C. Type of inhibition is - Incompetitive inhibitors.....(1pts)**

Because Km and Vmax are modified:

- ✓ **Vmax is decreased : 1/0,5= 2 (mol. min<sup>-1</sup>.l)..... (0,25pts)**
- ✓ **Km is reduced: 1/5= 0,2 (mol/l).....(0,25pts)**