

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


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

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

3. Diholosite 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

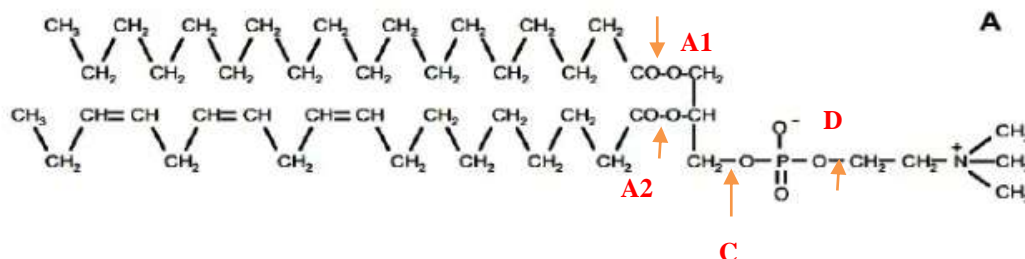
- **Stéarique acid**
- **Linolénique acid**
- **phosphoric acid (H₃PO₄)**
- **choline**

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)

NH₂ .Try-Lys-Asp-Ala-COOH or NH₂ .Try- Arg-Asp-Ala-COOH

Exercise 4: 3,5pts

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

A.K_m = 1/K_m = 1/1 = 1 (mol/l).....(1pts)

B.Calculate the V_{max}. the enzyme

V_{max} = 1/V_{max} = 1/0,1 = 10(mol. min⁻¹.l).....(1pts)

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

Because K_m and V_{max} are modified:

- ✓ **V_{max} is decreased : 1/0,5 = 2 (mol. min⁻¹.l)..... (0,25pts)**
- ✓ **K_m is reduced: 1/5 = 0,2 (mol/l).....(0,25pts)**