**Course Title: Medical Biochemistry II**

**DT 2nd, Sec A**

**Lab Assignment**

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**Note: Avoid copy paste material, as it may deduct your marks.**

**Q1. Explain the process of Uric Acid Formation.**

**Ans…** No1 Uric Acid formation,

Uric Acid is a waste product created during the normal breakdown of purines, naturally occurring substances found in foods such as liver, mushrooms, anchovies , mackerel and dried beans according to the NIAMS. Uric acid is normally cleaned out of the blood by the kidneys, and passes out of the body along with urine.

Q2. Discuss all the protein complexes used in Electron transport chain.

* **Q2 complex 1Complex I**

**NADH transfers two electrons to Complex I resulting in four H+**

**ions being pumped across the inner**

**membrane. NADH is oxidized to NAD+**

**, which is recycled back into the Krebs cycle. Electrons are**

**transferred from Complex I to a carrier molecule ubiquinone (Q) or CoQ, which is reduced to ubiquinol.**

**Ubiquinol carries the electrons to Complex III.**

* **Complex 2,**

**FADH2**

**transfers electrons to Complex II and the electrons are passed along to ubiquinone. Q is reduced**

**to ubiquinol, which carries the electrons to Complex III. No H+**

**ions are transported to the intermembrane**

**space in this process.**

* **Complex 3**

**The passage of electrons to Complex III drives the transport of four more H+**

**ions across the inner membrane.**

**While electrons are passed to another electron carrier protein cytochrome C,**

* **Complex 4**

**Cytochrome C passes electrons to the final protein complex in the chain, Complex IV. Two H+**

**ions are**

**pumped across the inner membrane. The electrons are then passed from Complex IV to an oxygen (O2**

**molecule, causing the molecule to split. The resulting oxygen atoms quickly grab H+**

**ions to form two molecule of water.**

*the end*