



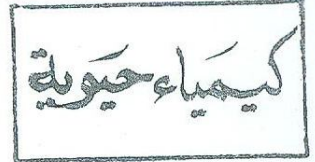
Biochemistry & Molecular Biology Exam
First Year, Final Exam
May, 23th, 2015
Time Allowed: 2 hours (50 marks)



I. Mention (only names):

(9 marks)

1. Two epimeric alcohols.
2. Two enzymes involved in mismatch repair.
3. Two methylated dietary purines.
4. Two immunoglobulins that can fix complement.
5. Two diseases that increase I₅ of LDH.
6. Two diseases due to oxidative damage of DNA.
7. Two glucosamine containing GAGs.
8. Two DNA markers.
9. Two vectors used in cloning.



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II. On biochemical bases explain the following:

(21 marks)

1. Aldosterone is regulated by the plasma K⁺.
2. The "T" form is the low oxygen-affinity form of hemoglobin.
3. The importance of restriction point in the cell cycle.
4. Failure of methotrexate as a chemotherapeutic agent.
5. Some dietary factors may influence iron absorption.
6. The importance of sigma "σ" factor for RNAP.
7. Cholesterol moderates membrane fluidity.

III. Give a short account of:

(20 marks)

1. Michaelis-Menten Equation.
2. DNA secondary structure.
3. Characteristics of genetic code.
4. Uses of tumor markers.

***** Good Luck *****

Assist. Prof. Dr. Amr Zahra