

Tanta University

Faculty of Medicine

Date: 2-9-2020

Medical Biochemistry Department.

Time allowed: 3hs

M.D. Medical Biochemistry Examination
Paper II (100 Marks)

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All questions must be answered :

i. Discuss the biochemical basis of each of the following diseases : (25 marks)

1. Aspartylglycosylaminuria
2. Refsum's disease
3. Thalassemia
4. Congenital lactic acidosis
5. Alkaptonuria

ii. Give an account on : (15marks)

1. Structure , synthesis , secretion and mechanism of action of insulin (10 marks)
2. Laboratory diagnosis of hypersecretion of GH (5 marks)

iii. Write on: (20marks)

1. Tumor markers for : (6 marks)
 - A. Prostatic cancer
 - B. Hepatocellular carcinoma
2. Enzymes used for diagnosis of obstructive jaundice (4 marks)
3. The relationship between carcinogenesis and role of diet (5 marks)
4. The impact of physical activity on the generations of ROS (5 marks)

iv. On biochemical basis, explain each of the following statements :(40 marks)

1. Cell death and cell survival are tightly regulated (10 marks)
2. The proper interplay between FA/TAG cycle and glucose metabolism is crucial for energy homeostasis during starvation. (15 marks)
3. Ten molecules of ATP are needed when alanine is used as participant for gluconeogenesis (15 marks)

Good Luck