

Faculty Of Medicine
Department Of Medical Biochemistry
Chest Master Exam.

First Part Exam.

8 / 4 / 2013

.....

1) Elaborate the role of immune related diseases in chest influenced by mechanisms of :

- a) Energy transduction.**
- b) Oxidative stress .**

(30 marks)

2) Summarize cellular uptake and degradation of LDL particles (diagram is important).

(20 marks)

Good Luck

ملحوظة :

سيعقد الامتحان الشفوي بمشيئة الله يوم الخميس الموافق 2013/4/18 الساعة التاسعة صباحا بالقسم .

.....

Dermatology M.S. & Diploma.

25
25

All questions are to be answered:

1) Discuss the steps of synthesis, mechanism of action and function of testosterone. ^{4.5} ⁴

12.5

2) Write on the followings: ⁴

12.5

a) Phenylketonuria. ⁴

b) Scurvy. ^{4.5}

c) Structure of basic unit of collagen. ⁴

~~Handwritten scribbles~~

Good Luck

سي عقد الامتحان الشفوي بمشيئة الله يوم الخميس ١٨/٤/٢٠١٣
التاريخ ٢٣

**Tanta University
Faculty of Medicine
Department of Medical Biochemistry
First Part Exam.**

6-4-2013

.....

Cardiology M.S. & Diploma

Discuss the clinical significance of each the following items :

- 1) CPK.
- 2) Myoglobin.
- 3) Cholesterol.
- 4) Troponin.

Good Luck

سيعد الامتحان الشفوي بمشيئة الله يوم الخميس ١٨ / ٤ / ٢٠١٣

M.Sc. in Medical Biochemistry
First Paper

Question I (case report)

Total 20 marks

A 12 years old girl had a history of frequent episodes of weakness, sweating and pallor that were eliminated by eating. The clinical examination showed enlarged liver. Live specimen was obtained. Histopathological examination showed dilated liver cells bulging with large amount of glycogen without inflammation or cirrhosis. Fasting blood glucose is low with elevation of serum uric acid and free fatty acids.

- a) What is the most likely diagnosis and etiology of the case ?(2 marks)
- b) What are the causes of each laboratory finding? (10 marks)
- c) Which hormones are predominant during the fasting state? Write the structure and mechanism of action of one of them.(8 marks)

Question II

Total 30 marks (10 marks for each item)

Discuss the following items

- 1) ALA synthase enzyme.
- 2) Central role of glutamate in ammonia metabolism.
- 3) Formation of figlue and its biological importance.

Question III

Describe the following items

Total 20 marks

- 1) The metabolism of chylomicrons. (6marks)
- 2) HMG Co A reductase enzyme and its regulation. (8 marks)
- 3) Synthesis of palmitoleoyl - CoA .(6 marks)

Question IV

Total 30 marks (7.5marks for each item)

- 1) Describe the synthesis of ATP from IMP.
- 2) Role out the structure, function and deficiency of vitamin B₆.
- 3) Discuss ETC components and inhibitors.
- 4) Elaborate the role of reactive oxygen species in carcinogenesis.

M.Sc. Medical Biochemistry
Second Paper

Question I

Describe the biochemical basis of the following diseases

(Total marks 25 marks. 5marks for each item)

- 1) Lesh Nyhan syndrome
- 2) Met hemoglobin
- 3) Alkptinurea
- 4) Gaucher's diseases
- 5) Favism

Question II

Discuss the following items

(Total marks 15 marks)

- 1) The role of carrier proteins in the transport of micromolecules across biological membrane **(5 marks)**
- 2) Synthesis ,secretion and mechanism of action of growth hormones **(10 marks)**

Question III

(Total marks 20 marks)

- 1) Compare between competitive and non competitive inhibitors with clinical correlation **(8 marks)**
- 2) Describe motifs of protein's secondary structure **(6 marks)**
- 3) Discuss Bohr effect **(6 marks)**

Question IV

(Total marks 40 marks 8 marks for each item)

- 1) Discuss the structure and function of histone
- 2) Describe mismatch repair with its clinical correlation
- 3) Describe the role of RNAi in treatment of diseases
- 4) Illustrate the role RFLP in diagnosis of sickle anemia
- 5) Enumerate different types of splicing and discuss one type with clinical correlation