

Faculty of Medicine
Biochemistry Department
M.D Exam- Paper I – Time 3 H

I- Protein phosphorylation play a bivotal role on protein structure and functions.

Discuss with illustrations the Types & mechanisms, Initiation & stimulation, Inhibition, Functions & importance.

II- Give an accounts on

- a- Natural fibrinolytics.
- b- Glycoprotein types, properties and functions.
- c- Metabolic errors associated with mental retardation.
- d- Prostanoids synthesis and clinical significance.

III- The mitochondria is organized to be the powerhouse of the cell.

Discuss the general features and functions of mitochondria and explain the compatibility between composition and performance.

IV- Give an accounts on

- a-Hydroxylases of biological importance.
- b-Pro-opiomelanocortin peptide family.
- c-Ritinoids.
- d-Synthesis of purine nucleotides.

GOOD LUCK.

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M.D Exam, Paper II. Time: 3 H

I-The death of the cell is just as carefully controlled as its life.

Why do cells kill themselves?

What trigger apoptosis?

Discuss the mechanisms and regulators during apoptosis.

II-(a)-What is G-proteins ? Discuss their pathways, functions and regulations as a cell signaling molecules ?.

(b)-Causes of native protein molecule folding stability and disorders of altered folding.

III- The biochemical analysis at the molecular levels, has led to understanding many diseases and development of new modalities of therapy. Discuss ? and write an account on recombinant DNA technology and its applications.

IV- Give an accounts on

a-Post-transcriptional modification of RNA.

b-Gene knock-out mouse engineering and utility.

c-Biochemical basis and types of mutations.

d-Cellular stress proteins of biomedical importance.

V- Comment on the case file provided.

GOOD LUCK.

Mansoura University
Faculty of Medicine

Molecular biology & Biochemistry
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First Part M.D.(Derma., Andr. & STDs) Time allowed:1.30 hr.

- 1- Enumerate trace elements and discuss the functions of zinc and copper. (10 marks)
- 2- Give an account on oxidative stress and antioxidants. (20 marks).
- 3- Discuss recombinant DNA technology and its application. (20 marks).

Give an account on:

- 4-Molecular biology of gametogenesis. (25 marks)
- 5- Molecular biology of skin tumours. (25 marks)

GOOD LUCK

ملحوظة:

- ا) الإجابة باللون الأزرق فقط والرصاص للرسم.
- ب) ممنوع الإجابة من الجهة اليمنى إلى اليسرى من كراسة الإجابة.
- ج) ممنوع وضع أي علامات أو عبارات باللغة العربية في الكراسة.