

Examination for (MD Clinical Pathology)  
Course Title: 1st Paper (Clinical Chemistry)  
Date: 13/10/2012  
Term: October 2012  
Time Allowed: 3 hours  
Total Assessment Marks: 40



Tanta University  
Faculty of Medicine  
Department of Clinical Pathology

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**All questions must be answered**

**Q1:**

- a) Mention types of abnormal plasma proteins and its laboratory assessments
- b) Discuss renal osteodystrophy

**Q2:**

- a) Describe quality control charts, general principle and clinical applications in the lab
- b) Define insulin resistance, cause, role in metabolic syndrome and its laboratory assessments

**Q3:**

- a) Define oncogenes and oncosuppressor genes, discuss its role in the pathogenesis and prevention in cancer and its laboratory assessments
- b) Define urinary net charge and discuss its clinical significances

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Q1:

- a) Describe methods of detecting amplified nucleic acid sequences
- b) Discuss etiology and laboratory assessments of anemia in infancy and childhood

Q2

- A) Outline lipoprotein abnormalities associated with increased risk of coronary heart diseases
- B) Define the biochemical features in diabetic patients presenting with coma
- C) Recognize neonatal hyperbilirubinemia

Q3:

- a) Describe enzymes as a tumor markers
- b) Mention the pathogens transmitted by blood transfusion and methods of its detections
- c) Give a short account on the significance and mechanisms of immunologic tolerance