

11/11/12

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**POSTGRADUATE DIPLOMA IN CHEMICAL PATHOLOGY**  
**EXAMINATION – NOVEMBER 2012**

**Date :-** 20<sup>th</sup> November 2012

**Time :-** 9.00 a.m. – 11.00 a.m.

**ESSAY PAPER**

**All four** questions to be answered.  
Use a separate book for each question.  
Write legibly.

1. Discuss the clinical significance of the measurement of **any three (03)** of the following.  
(Each component carries equal marks)
  - 1.1. Serum total calcium
  - 1.2. Spot urinary sodium
  - 1.3. Serum prolactin
  - 1.4. Apolipoprotein B (100 marks)
  
2. Describe one (01) method for the **measurement of any three (03)** of the following, including analytical principle, calibration and interfering substances.  
(Each component carries equal marks)
  - 2.1. High-density lipoprotein cholesterol (HDL – C)
  - 2.2. Alanine aminotransferase (ALT)
  - 2.3. Polymerase chain reaction (PCR)
  - 2.4. Serum lithium (100 marks)
  
3. Discuss the differential diagnosis and biochemical investigations you will perform to arrive at a diagnosis, in a 35-year-old female with hyperkalaemia. (100 marks)
  
4. Discuss **critically** the different types of immunoassays available in a chemical pathology laboratory giving examples where appropriate. (100 marks)