# 2015/16 Batch
# Pharmacology Tutorial
# Pharmacokinetics

14.06.2019– 08.00 a.m. to 10.00 a.m.

1. Explain the basis for the following clinical situations.

   1.1 A patient taking oral theophylline for bronchial asthma presents with cardiac arrhythmias and seizures following treatment with erythromycin for a respiratory tract infections.

   1.2 A patient on long term phenytoin therapy for epilepsy presents with ataxia, tremor and confusion following a recent dose increment.

   1.3 A patient with salicylate poisoning is treated with intravenous bicarbonate.

   1.4 Probenecid is given to enhance the effect of penicillin

   1.5 The anticonvulsive effect of diazepam when given in status epilepticus lasts about 20 minutes despite its longer plasma half-life of about 24-50 hours.

   1.6 When isoniazid is administered in equal dosage to a group of patients with tuberculosis, some of them developed sensory polyneuropathy.

2. Draw the concentration-time curves for the following dosing regimens.

   2.1 Single IV bolus injection
   2.2 Single-dose oral administration
   2.3 Continuous IV infusion
   2.4 Intermittent IV bolus injection
   2.5 Intermittent oral administration of immediate-release formulation
   2.6 Intermittent oral administration of modified-release formulation