Answer Sheet for Semester 4 EKGs

EKG # 12 1/15/08	Normal sinus rhythm Left atrial enlargement Nonspecific ST and T wave abnormality Left ventricular hypertrophy *Teaching points – left atrial enlargement criteria* *1. The amplitude of the negative component of the P wave in lead V1 is at least 1mm below the isoelectric line* *2. The duration of the P wave is increased, and the terminal (negative) portion of the P wave must be at least one small block (0.04 seconds) in width* *Teaching point – LVH criteria* *1. R wave in V5 or V6 + S wave in V 1 or V2 is > 35mm*	Vent. Rate PR interval QRS duration QT/QTc P-R-T axes	83 166 98 366/430 61 -35	BPM ms ms ms 77
EKG # 13 1/15/08	Sinus rhythm Second degree S-A block, type I (Wenckebach) Septal infarct *Teaching point – The Thaler text does not cover septal MIs. LUHS criteria for septal MI is a significant Q wave in V1 and V2. We will cover MIs later in the semester* *Teaching point – Looking at the rhythm strip the PR interval increases from the first beat to the second beat. The 3rd P wave is not followed by a QRS. The 4th P wave is followed by a QRS and the PR interval in shorter. The PR interval following the 5th P wave is longer. The 6th P wave is not followed by a QRS. (See text pg 158)*	Vent. Rate PR interval QRS duration QT/QTc P-R-T axes	49 * 92 434/392 * -29	BPM ms ms ms 104
EKG # 14 1/15/08	Sinus bradycardia . . . with 2nd degree A-V block, type I (Wenckebach) Left ventricular hypertrophy with 'strain' *Teaching point – The 4th P wave is not followed by a QRS. Note that the 5th P wave is followed by a normal PR interval. The 6th, 7th and 8th P waves are followed by progressively lengthening PR intervals.* *Teaching point – LVH criteria is met by:* *1. The R wave in V5 exceeds 26mm* *2. The R wave in V5 + the S wave in V2 exceeds 35mm (Text pg. 84)*	Vent. Rate PR interval QRS duration QT/QTc P-R-T axes	44 * 108 440/376 76 71	BPM ms ms ms -59
EKG # 15 1/15/08	Sinus rhythm 3rd degree A-V block Left bundle branch block *Teaching point – The P waves show no relation to the QRS waves. No atrial pulses make it through to activate the ventricles. The site of block can be either at the AV node or lower. The ventricles respond by generating an escape rhythm, usually an inadequate 30-45 bpm. The atria contract at their own intrinsic rate (60-100 bpm). In this EKG the ventricles beat at 37 bpm and the atrial beat marches out at about 100 bpm. (See text pg. 162-165)*	Vent. Rate PR interval QRS duration QT/QTc P-R-T axes	37 * 156 592/464 * 66	BPM ms ms ms -139