

PAPER-III

SUBJECT CODE & NAME- 801510-MEDICAL ELECTRONICS, BIOPHYSICS AND COMPUTER USAGE RELEVANT TO CARDIAC TECHNOLOGY AND BASIC ELECTROCARDIOGRAPHY

UNIT – 1-Puzzle 3:

Scenario-Based Brain Teaser Adaptation - Repolarization Vector Twist

- This scenario introduces a physiological twist related to electrical field generation, adapting the structure of the Scenario-Based Brain Teaser - Deficiency Twist.

Scenario: A patient is undergoing therapy that temporarily causes the entire process of cardiac electrical field generation during ventricular recovery (repolarization) to reverse its usual direction.

Normally, recovery starts externally (epicardium) and moves inward, resulting in a T wave that is generally positive in Lead II.

Twist: Due to the therapy, repolarization starts internally (endocardium) and moves outward, directly mirroring the sequence of depolarization.

Questions:

1. What ECG wave specifically represents this process of ventricular recovery?
2. What change would be observed in the T wave morphology on the Standard Limb Leads (specifically Lead II) in this scenario?
3. If would their T wave return to normal?

