**Advanced ECG & Exercise Physiology BVOCCT-106**

**UNIT I**

Cardiovascular and pulmonary responses to exercise. Type of Exercise, Exercise Physiology Maximum Oxygen Uptake, Myocardial Oxygen uptake, Heart rate Response, Arterial Blood pressure response etc.

Relative & absolute Indication ,contraindication, Termination of Exercise, Testing Procedures: Subject preparation, Electrocardiographic Recording, Equipment and protocols, test supervision and interpretation, post exercise period

**UNIT II**

Fourlevelanginascaleforexercisetolerancetest.Metabolicequivalent,etc

Complication secondary to exercise tests.

Interpretation; clinical response:-symptoms, subject appearance, physical examination, exercise capacity

**UNIT III**

Haemo dynamic response; blood pressure, HR during exercise, Brog scale for rating perceived exertion.

Normal and abnormal ECG Response; P,QRS,T,U Wave changes, ST-segment depression, elevation, ST-Segment elevation in Post-MI patient conduction abnormalities.

Diagnostic value of the exercise test, prognostic use of the exercise test, exertional hypotension. Cardiac events in-patient with silent ischemia. Exercise parameters associated with poor prognosis and/or increased severity of CAD. Other uses of exercise test.

**UNIT IV**

Drugs and exercise testing; Beta blockers, vasodilators, ACE-Inhibitors, calcium antagonists, digitalis, other drugs

Special cases of exercise testing interpretation.

**LIST OF PRACTICAL EXERCISES:**

1. Types of TMT equipment’s: Proper handling and maintenance of equipment’s

2. Getting familiarize with different TM protocols

3. Patient information and patient privacy

4. Performing TMT

5. Interpretation of ECG changes during exercise and recovery

6. Reporting and Data Storage

**References:**

Latest editions of the following books:

1. Elle stedt’s Principles of Exercise Electrocardiogram.

2. Manual of Exercise Electrocardiogram-Edward. Hung